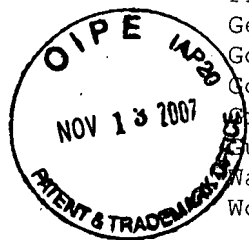


Sequence Listing

<110> Eaton, Dan L.  
Filvaroff, Ellen  
Gerritsen, Mary E.  
Goddard, Audrey  
Godowski, Paul J.  
Grimaldi, Christopher J.  
Gurney, Austin L.  
Watanabe, Colin K.  
Wood, William I.



<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
ACIDS ENCODING THE SAME

<130> P3230R1C49

<150> 60/063435  
<151> 1997-10-29

<150> 60/064215  
<151> 1997-10-29

<150> 60/082797  
<151> 1998-04-22

<150> 60/083495  
<151> 1998-04-29

<150> 60/085579  
<151> 1998-05-15

<150> 60/087759  
<151> 1998-06-02

<150> 60/088021  
<151> 1998-06-04

<150> 60/088029  
<151> 1998-06-04

<150> 60/088030  
<151> 1998-06-04

<150> 60/088734  
<151> 1998-06-10

<150> 60/088740  
<151> 1998-06-10

<150> 60/088811  
<151> 1998-06-10

<150> 60/088824  
<151> 1998-06-10

<150> 60/088825

<151> 1998-06-10

<150> 60/088863  
<151> 1998-06-11

<150> 60/089105  
<151> 1998-06-12

<150> 60/089514  
<151> 1998-06-16

<150> 60/089653  
<151> 1998-06-17

<150> 60/089952  
<151> 1998-06-19

<150> 60/090246  
<151> 1998-06-22

<150> 60/090444  
<151> 1998-06-24

<150> 60/090688  
<151> 1998-06-25

<150> 60/090696  
<151> 1998-06-25

<150> 60/090862  
<151> 1998-06-26

<150> 60/091628  
<151> 1998-07-02

<150> 60/096012  
<151> 1998-08-10

<150> 60/096757  
<151> 1998-08-17

<150> 60/096949  
<151> 1998-08-18

<150> 60/096959  
<151> 1998-08-18

<150> 60/097954  
<151> 1998-08-26

<150> 60/097971  
<151> 1998-08-26

<150> 60/097979  
<151> 1998-08-26

<150> 60/098749

<151> 1998-09-01

<150> 60/099741

<151> 1998-09-10

<150> 60/099763

<151> 1998-09-10

<150> 60/099792

<151> 1998-09-10

<150> 60/099812

<151> 1998-09-10

<150> 60/099815

<151> 1998-09-10

<150> 60/100627

<151> 1998-09-16

<150> 60/100662

<151> 1998-09-16

<150> 60/100683

<151> 1998-09-17

<150> 60/100684

<151> 1998-09-17

<150> 60/100930

<151> 1998-09-17

<150> 60/101279

<151> 1998-09-22

<150> 60/101475

<151> 1998-09-23

<150> 60/101738

<151> 1998-09-24

<150> 60/101743

<151> 1998-09-24

<150> 60/101916

<151> 1998-09-24

<150> 60/102570

<151> 1998-09-30

<150> 60/103449

<151> 1998-10-06

<150> 60/103678

<151> 1998-10-08

<150> 60/103679

<151> 1998-10-08

<150> 60/103711  
<151> 1998-10-08

<150> 60/105000  
<151> 1998-10-20

<150> 60/105002  
<151> 1998-10-20

<150> 60/105881  
<151> 1998-10-27

<150> 60/106030  
<151> 1998-10-28

<150> 60/106464  
<151> 1998-10-30

<150> 60/106856  
<151> 1998-11-03

<150> 60/108807  
<151> 1998-11-17

<150> 60/112419  
<151> 1998-12-15

<150> 60/112422  
<151> 1998-12-15

<150> 60/112853  
<151> 1998-12-16

<150> 60/113011  
<151> 1998-12-16

<150> 60/112854  
<151> 1998-12-16

<150> 60/113300  
<151> 1998-12-22

<150> 60/113408  
<151> 1998-12-22

<150> 60/113430  
<151> 1998-12-23

<150> 60/113621  
<151> 1998-12-23

<150> 60/114223  
<151> 1998-12-30

<150> 60/115614

<151> 1999-01-12  
  
<150> 60/116527  
<151> 1999-01-20  
  
<150> 60/116843  
<151> 1999-01-22  
  
<150> 60/119285  
<151> 1999-02-09  
  
<150> 60/119287  
<151> 1999-02-09  
  
<150> 60/119525  
<151> 1999-02-10  
  
<150> 60/119549  
<151> 1999-02-10  
  
<150> 60/120014  
<151> 1999-02-11  
  
<150> 60/129122  
<151> 1999-04-13  
  
<150> 60/129674  
<151> 1999-04-16  
  
<150> 60/131291  
<151> 1999-04-27  
  
<150> 60/138387  
<151> 1999-06-09  
  
<150> 60/144791  
<151> 1999-07-20  
  
<150> 60/169495  
<151> 1999-12-07  
  
<150> 60/175481  
<151> 2000-01-11  
  
<150> 60/191007  
<151> 2000-03-21  
  
<150> 60/199397  
<151> 2000-04-25  
  
<150> 09/380139  
<151> 1998-08-25  
  
<150> 09/311832  
<151> 1999-05-14  
  
<150> 09/380137

<151> 1999-08-25  
  
<150> 09/380138  
<151> 1999-08-25  
  
<150> 09/380142  
<151> 1999-08-25  
  
<150> 09/397342  
<151> 1999-09-15  
  
<150> 09/403297  
<151> 1999-10-18  
  
<150> 09/423844  
<151> 1999-11-12  
  
<150> 09/644848  
<151> 2000-08-22  
  
<150> 09/665350  
<151> 2000-09-18  
  
<150> 09/664610  
<151> 2000-09-18  
  
<150> 09/709238  
<151> 2000-11-08  
  
<150> 09/747259  
<151> 2000-12-20  
  
<150> 09/816744  
<151> 2001-03-22  
  
<150> 09/854208  
<151> 2001-05-10  
  
<150> 09/854280  
<151> 2001-05-10  
  
<150> 09/870574  
<151> 2001-05-30  
  
<150> 09/874503  
<151> 2001-06-05  
  
<150> 09/869599  
<151> 2001-06-29  
  
<150> 09/908,827  
<151> 2001-07-18  
  
<150> PCT/US98/19330  
<151> 1998-09-16  
  
<150> PCT/US99/05028

<151> 1999-03-08  
  
<150> PCT/US99/10733  
<151> 1999-05-14  
  
<150> PCT/US99/12252  
<151> 1999-06-02  
  
<150> PCT/US99/20111  
<151> 1999-09-01  
  
<150> PCT/US99/21090  
<151> 1999-09-15  
  
<150> PCT/US99/21194  
<151> 1999-09-15  
  
<150> PCT/US99/30720  
<151> 1999-12-22  
  
<150> PCT/US00/04341  
<151> 2000-02-18  
  
<150> PCT/US00/04342  
<151> 2000-02-18  
  
<150> PCT/US00/04414  
<151> 2000-02-22  
  
<150> PCT/US00/05601  
<151> 2000-03-01  
  
<150> PCT/US00/08439  
<151> 2000-03-30  
  
<150> PCT/US00/14042  
<151> 2000-05-22  
  
<150> PCT/US00/15264  
<151> 2000-06-02  
  
<150> PCT/US00/23522  
<151> 2000-08-23  
  
<150> PCT/US00/23328  
<151> 2000-08-24  
  
<150> PCT/US00/30873  
<151> 2000-11-10  
  
<150> PCT/US00/32378  
<151> 2000-12-01  
  
<150> PCT/US00/34956  
<151> 2000-12-20  
  
<150> PCT/US01/06520

<151> 2001-02-28

<150> PCT/US01/06666

<151> 2001-03-01

<150> PCT/US01/17443

<151> 2001-05-30

<150> PCT/US01/17800

<151> 2001-06-01

<150> PCT/US01/19692

<151> 2001-06-20

<150> PCT/US01/21066

<151> 2001-06-29

<150> PCT/US01/21735

<151> 2001-07-09

<160> 170

<210> 1

<211> 1173

<212> DNA

<213> Homo Sapien

<400> 1

ggggccttcgg cgccagcggc cagcgctagt cggctctggta aggatttaca 50  
aaaggtgcag gtatgagcag gtctgaagac taacatTTtg tgaagttgta 100  
aaacagaaaa cctgttagaa atgtgggtggT ttcagcaagg cctcagtttc 150  
cttccttcag cccttgtaat ttggacatct gctgctttca tattttcata 200  
cattactgca gtaacactcc accatataga cccggcttta ccttatatca 250  
gtgacactgg tacagtagct ccagaaaaat gcttatttgg ggcaatgcta 300  
aatattgCGg cagttttatg cattgctacc atttatgttc gttataagca 350  
agttcatgct ctgagtcctg aagagaacgt tatcatcaaa ttaaacaagg 400  
ctggccttgt acttggaata ctgagttgtt taggactttc tattgtggca 450  
aacttcaga aaacaaccct ttttgctgca catgtaagtg gagctgtgct 500  
tacctttggT atgggctcat tatatatgtt tgttcagacc atcctttcct 550  
accaaatgca gcccaaaatc catggcaaac aagtcttctg gatcagactg 600  
ttgttggtta tctggtgtgg agtaagtgca cttagcatgc tgacttgctc 650  
atcagttttg cacagtggca attttgggac tgatttagaa cagaaactcc 700  
attggaaccc cgaggacaaa ggttatgtgc ttcacatgat cactactgca 750



gcagaatggt ctatgtcatt ttccttcttt gggtttttcc tgacttacat 800  
tcgtgatttt cagaaaattt ctttacgggt ggaagccaat ttacatggat 850  
taaccctcta tgacactgca ccttgcccta ttaacaatga acgaacacgg 900  
ctactttcca gagatatttg atgaaaggat aaaatatttc tgtaatgatt 950  
atgattctca gggattgggg aaagggtcac agaagttgct tattcttctc 1000  
tgaaattttc aaccacttaa tcaaggctga cagtaacact gatgaatgct 1050  
gataatcagg aaacatgaaa gaagccattt gatagattat tctaaaggat 1100  
atcatcaaga agactattaa aaacacctat gcctatactt ttttatctca 1150  
gaaaataaag tcaaaagact atg 1173

<210> 2

<211> 266

<212> PRT

<213> Homo Sapien

<400> 2

Met	Trp	Trp	Phe	Gln	Gln	Gly	Leu	Ser	Phe	Leu	Pro	Ser	Ala	Leu	
1				5					10					15	
Val	Ile	Trp	Thr	Ser	Ala	Ala	Phe	Ile	Phe	Ser	Tyr	Ile	Thr	Ala	
				20					25					30	
Val	Thr	Leu	His	His	Ile	Asp	Pro	Ala	Leu	Pro	Tyr	Ile	Ser	Asp	
				35					40					45	
Thr	Gly	Thr	Val	Ala	Pro	Glu	Lys	Cys	Leu	Phe	Gly	Ala	Met	Leu	
				50					55					60	
Asn	Ile	Ala	Ala	Val	Leu	Cys	Ile	Ala	Thr	Ile	Tyr	Val	Arg	Tyr	
				65					70					75	
Lys	Gln	Val	His	Ala	Leu	Ser	Pro	Glu	Glu	Asn	Val	Ile	Ile	Lys	
				80					85					90	
Leu	Asn	Lys	Ala	Gly	Leu	Val	Leu	Gly	Ile	Leu	Ser	Cys	Leu	Gly	
				95					100					105	
Leu	Ser	Ile	Val	Ala	Asn	Phe	Gln	Lys	Thr	Thr	Leu	Phe	Ala	Ala	
				110					115					120	
His	Val	Ser	Gly	Ala	Val	Leu	Thr	Phe	Gly	Met	Gly	Ser	Leu	Tyr	
				125					130					135	
Met	Phe	Val	Gln	Thr	Ile	Leu	Ser	Tyr	Gln	Met	Gln	Pro	Lys	Ile	
				140					145					150	
His	Gly	Lys	Gln	Val	Phe	Trp	Ile	Arg	Leu	Leu	Leu	Val	Ile	Trp	
				155					160					165	

Cys Gly Val Ser Ala Leu Ser Met Leu Thr Cys Ser Ser Val Leu	170	175	180
His Ser Gly Asn Phe Gly Thr Asp Leu Glu Gln Lys Leu His Trp	185	190	195
Asn Pro Glu Asp Lys Gly Tyr Val Leu His Met Ile Thr Thr Ala	200	205	210
Ala Glu Trp Ser Met Ser Phe Ser Phe Phe Gly Phe Phe Leu Thr	215	220	225
Tyr Ile Arg Asp Phe Gln Lys Ile Ser Leu Arg Val Glu Ala Asn	230	235	240
Leu His Gly Leu Thr Leu Tyr Asp Thr Ala Pro Cys Pro Ile Asn	245	250	255
Asn Glu Arg Thr Arg Leu Leu Ser Arg Asp Ile	260	265	

<210> 3  
 <211> 2037  
 <212> DNA  
 <213> Homo Sapien

<400> 3  
 cggacgcgtg ggcggacgcg tgggggagag ccgcagtcct ggctgcagca 50  
 cctgggagaa ggcagaccgt gtgagggggc ctgtggcccc agcgtgctgt 100  
 ggcctcgggg agtgggaagt ggaggcagga gccttcctta cacttcgcca 150  
 tgagtttcct catcgactcc agcatcatga ttacctcca gatactattt 200  
 tttggatttg ggtggctttt cttcatgcgc caattgttta aagactatga 250  
 gatacgtcag tatgttgtac aggtgatctt ctccgtgacg tttgcatttt 300  
 cttgcaccat gtttgagctc atcatctttg aaatcttagg agtattgaat 350  
 agcagctccc gttattttca ctggaaaatg aacctgtgtg taattctgct 400  
 gatcctgggtt ttcattggtg cttttttacat tggctatttt attgtgagca 450  
 atatccgact actgcataaa caacgactgc ttttttcctg tctcttatgg 500  
 ctgaccttta tgtatttcct ctggaaacta ggagatccct ttccatttct 550  
 cagcccaaaa catgggatct tatccataga acagctcatc agccggggtg 600  
 gtgtgatttg agtgactctc atggctcttc tttctggatt tgggtgctgtc 650  
 aactgcccac acatttacat gtcttacttc ctcaggaatg tgactgacac 700  
 ggatattcta gccctggaac ggcgactgct gcaaaccatg gatatgatca 750

taagcaaaaa gaaaaggatg gcaatggcac ggagaacaat gttccagaag 800  
 ggggaagtgc ataacaaacc atcaggtttc tggggaatga taaaaagtgt 850  
 taccacttca gcatcaggaa gtgaaaatct tactcttatt caacaggaag 900  
 tggatgcttt ggaagaatta agcaggcagc tttttctgga aacagctgat 950  
 ctatatgcta ccaaggagag aatagaatac tccaaaacct tcaaggggaa 1000  
 atattttaat tttcttggtt actttttctc tatttactgt gtttggaata 1050  
 ttttcatggc taccatcaat attgtttttg atcgagttgg gaaaacggat 1100  
 cctgtcacia gaggcattga gatcactgtg aattatctgg gaatccaatt 1150  
 tgatgtgaag ttttggtccc aacacatttc cttcattctt gttggaataa 1200  
 tcatcgtcac atccatcaga ggattgctga tcaactctac caagttcttt 1250  
 tatgccatct ctagcagtaa gtctccaat gtcattgtcc tgctatttagc 1300  
 acagataatg ggcattgtact ttgtctctc tgtgctgctg atccgaatga 1350  
 gtatgccttt agaataccgc accataatca ctgaagtcct tggagaactg 1400  
 cagttcaact tctatcaccg ttggtttgat gtgatcttcc tggtcagcgc 1450  
 tctctctagc atactcttcc tctatttggc tcacaaacag gcaccagaga 1500  
 agcaaatggc accttgaact taagcctact acagactgtt agaggccagt 1550  
 ggtttcaaaa tttagatata agagggggga aaaatggaac cagggcctga 1600  
 cattttataa acaaacaaaa tgctatggta gcatttttca cttcatagc 1650  
 atactccttc cccgtcaggt gatactatga ccatgagtag catcagccag 1700  
 aacatgagag ggagaactaa ctcaagacaa tactcagcag agagcatccc 1750  
 gtgtggatat gaggctggtg tagaggcgga gaggagccaa gaaactaaag 1800  
 gtgaaaaata cactggaact ctggggcaag acatgtctat ggtagctgag 1850  
 ccaaacacgt aggatttccg ttttaagggt cacatggaaa aggttatagc 1900  
 tttgccttga gattgactca ttaaaatcag agactgtaac aaaaaaaaaa 1950  
 aaaaaaaaaa agggcgggccg cgactctaga gtcgacctgc agaagcttgg 2000  
 ccgcatggc ccaacttggt tattgcagct tataatg 2037

<210> 4  
 <211> 455  
 <212> PRT  
 <213> Homo Sapien

<400> 4

Met	Ser	Phe	Leu	Ile	Asp	Ser	Ser	Ile	Met	Ile	Thr	Ser	Gln	Ile	1	5	10	15
Leu	Phe	Phe	Gly	Phe	Gly	Trp	Leu	Phe	Phe	Met	Arg	Gln	Leu	Phe	20	25	30	
Lys	Asp	Tyr	Glu	Ile	Arg	Gln	Tyr	Val	Val	Gln	Val	Ile	Phe	Ser	35	40	45	
Val	Thr	Phe	Ala	Phe	Ser	Cys	Thr	Met	Phe	Glu	Leu	Ile	Ile	Phe	50	55	60	
Glu	Ile	Leu	Gly	Val	Leu	Asn	Ser	Ser	Ser	Arg	Tyr	Phe	His	Trp	65	70	75	
Lys	Met	Asn	Leu	Cys	Val	Ile	Leu	Leu	Ile	Leu	Val	Phe	Met	Val	80	85	90	
Pro	Phe	Tyr	Ile	Gly	Tyr	Phe	Ile	Val	Ser	Asn	Ile	Arg	Leu	Leu	95	100	105	
His	Lys	Gln	Arg	Leu	Leu	Phe	Ser	Cys	Leu	Leu	Trp	Leu	Thr	Phe	110	115	120	
Met	Tyr	Phe	Phe	Trp	Lys	Leu	Gly	Asp	Pro	Phe	Pro	Ile	Leu	Ser	125	130	135	
Pro	Lys	His	Gly	Ile	Leu	Ser	Ile	Glu	Gln	Leu	Ile	Ser	Arg	Val	140	145	150	
Gly	Val	Ile	Gly	Val	Thr	Leu	Met	Ala	Leu	Leu	Ser	Gly	Phe	Gly	155	160	165	
Ala	Val	Asn	Cys	Pro	Tyr	Thr	Tyr	Met	Ser	Tyr	Phe	Leu	Arg	Asn	170	175	180	
Val	Thr	Asp	Thr	Asp	Ile	Leu	Ala	Leu	Glu	Arg	Arg	Leu	Leu	Gln	185	190	195	
Thr	Met	Asp	Met	Ile	Ile	Ser	Lys	Lys	Lys	Arg	Met	Ala	Met	Ala	200	205	210	
Arg	Arg	Thr	Met	Phe	Gln	Lys	Gly	Glu	Val	His	Asn	Lys	Pro	Ser	215	220	225	
Gly	Phe	Trp	Gly	Met	Ile	Lys	Ser	Val	Thr	Thr	Ser	Ala	Ser	Gly	230	235	240	
Ser	Glu	Asn	Leu	Thr	Leu	Ile	Gln	Gln	Glu	Val	Asp	Ala	Leu	Glu	245	250	255	
Glu	Leu	Ser	Arg	Gln	Leu	Phe	Leu	Glu	Thr	Ala	Asp	Leu	Tyr	Ala	260	265	270	
Thr	Lys	Glu	Arg	Ile	Glu	Tyr	Ser	Lys	Thr	Phe	Lys	Gly	Lys	Tyr	275	280	285	

Phe	Asn	Phe	Leu	Gly	Tyr	Phe	Phe	Ser	Ile	Tyr	Cys	Val	Trp	Lys
				290					295					300
Ile	Phe	Met	Ala	Thr	Ile	Asn	Ile	Val	Phe	Asp	Arg	Val	Gly	Lys
				305					310					315
Thr	Asp	Pro	Val	Thr	Arg	Gly	Ile	Glu	Ile	Thr	Val	Asn	Tyr	Leu
				320					325					330
Gly	Ile	Gln	Phe	Asp	Val	Lys	Phe	Trp	Ser	Gln	His	Ile	Ser	Phe
				335					340					345
Ile	Leu	Val	Gly	Ile	Ile	Ile	Val	Thr	Ser	Ile	Arg	Gly	Leu	Leu
				350					355					360
Ile	Thr	Leu	Thr	Lys	Phe	Phe	Tyr	Ala	Ile	Ser	Ser	Ser	Lys	Ser
				365					370					375
Ser	Asn	Val	Ile	Val	Leu	Leu	Leu	Ala	Gln	Ile	Met	Gly	Met	Tyr
				380					385					390
Phe	Val	Ser	Ser	Val	Leu	Leu	Ile	Arg	Met	Ser	Met	Pro	Leu	Glu
				395					400					405
Tyr	Arg	Thr	Ile	Ile	Thr	Glu	Val	Leu	Gly	Glu	Leu	Gln	Phe	Asn
				410					415					420
Phe	Tyr	His	Arg	Trp	Phe	Asp	Val	Ile	Phe	Leu	Val	Ser	Ala	Leu
				425					430					435
Ser	Ser	Ile	Leu	Phe	Leu	Tyr	Leu	Ala	His	Lys	Gln	Ala	Pro	Glu
				440					445					450
Lys	Gln	Met	Ala	Pro										
				455										

<210> 5  
 <211> 2372  
 <212> DNA  
 <213> Homo Sapien

<400> 5  
 agcagggaaa tccgatgtc tcggttatga agtggagcag tgagtgtgag 50  
 cctcaacata gttccagaac tctccatccg gactagttat tgagcatctg 100  
 cctctcatat caccagtggc catctgaggt gtttccctgg ctctgaaggg 150  
 gtaggcacga tggccaggtg cttcagcctg gtgttgcttc tcacttccat 200  
 ctggaccacg aggctcctgg tccaaggctc tttgcgtgca gaagagcttt 250  
 ccatccaggt gtcatgcaga attatgggga tcacccttgt gagcaaaaag 300  
 gcgaaccagc agctgaattt cacagaagct aaggaggcct gtaggctgct 350  
 gggactaagt ttggccggca aggaccaagt tgaaacagcc ttgaaagcta 400

gctttgaaac ttgcagctat ggctgggttg gagatggatt cgtgggtcatc 450  
tctaggatta goccacaccc caagtgtggg aaaaatgggg tgggtgtcct 500  
gatttggaag gttccagtga gccgacagtt tgcagcctat tgttacaact 550  
catctgatac ttggactaac togtgcattc cagaaattat caccaccaa 600  
gatcccatat tcaacactca aactgcaaca caaacaacag aatttattgt 650  
cagtgcagct acctactcg tggcatcccc ttactctaca atacctgcc 700  
ctactactac tctctctgct ccagcttcca cttctattcc acggagaaaa 750  
aaattgattt gtgtcacaga agtttttatg gaaactagca ccatgtctac 800  
agaaactgaa ccatttggtg aaaataaagc agcattcaag aatgaagctg 850  
ctgggttttg aggtgtcccc acggctctgc tagtgcttgc tctcctcttc 900  
tttggtgctg cagctggtct tggattttgc tatgtcaaaa ggtatgtgaa 950  
ggccttccct ttacaaaaca agaatacagca gaaggaaatg atcgaaacca 1000  
aagtagtaaa ggaggagaag gccaatgata gcaaccctaa tgaggaaatca 1050  
aagaaaactg ataaaaaccc agaagagtcc aagagtccaa gcaaaactac 1100  
cgtgcgatgc ctggaagctg aagtttagat gagacagaaa tgaggagaca 1150  
cacctgaggc tggtttcttt catgctcctt accctgcccc agctggggaa 1200  
atcaaaaggg ccaagaacc aaagaagaaa gtccaccctt ggttcctaac 1250  
tggaatcagc tcaggactgc cattggacta tggagtgcac caaagagaat 1300  
gcccttctcc ttattgtaac cctgtctgga tctatctctc ctacctcaa 1350  
agcttccac gccctttcta gcctggctat gtcttaataa tatcccactg 1400  
ggagaaagga gttttgcaaa gtgcaaggac ctaaacatc tcatcagtat 1450  
ccagtggtaa aaaggcctcc tggctgtctg aggctaggtg ggttgaaagc 1500  
caaggagtca ctgagaccaa ggctttctct actgattccg cagctcagac 1550  
cctttcttca gctctgaaag agaaacacgt atccacactg acatgtcctt 1600  
ctgagcccg taagagcaaa agaattggcag aaaagttag cccctgaaag 1650  
ccatggagat tctcataact tgagacctaa tctctgtaaa gctaaaataa 1700  
agaaatagaa caaggctgag gatacgacag tacactgtca gcagggactg 1750  
taaacacaga cagggtcaaa gtgttttctc tgaacacatt gagttggaat 1800

cactgttttag aacacacaca cttacttttt ctggtctcta ccactgctga 1850  
 tattttctct aggaaatata cttttacaag taacaaaaat aaaaactctt 1900  
 ataaatttct atttttatct gagttacaga aatgattact aaggaagatt 1950  
 actcagtaat ttgttttaaaa agtaataaaa ttcaacaaac atttgctgaa 2000  
 tagctactat atgtcaagtg ctgtgcaagg tattacactc tgtaattgaa 2050  
 tattattcct caaaaaattg cacatagtag aacgctatct gggaagctat 2100  
 ttttttcagt ttgatattt•ctagcttatt tacttccaaa ctaattttta 2150  
 tttttgctga gactaatctt attcattttc tctaatatgg caaccattat 2200  
 aaccttaatt tattattaac atacctaaga agtacattgt tacctctata 2250  
 taccaaagca catttttaaaa gtgccattaa caaatgtatc actagccctc 2300  
 ctttttccaa caagaaggga ctgagagatg cagaaatatt tgtgacaaaa 2350  
 aattaaagca tttagaaaac tt 2372

<210> 6  
 <211> 322  
 <212> PRT  
 <213> Homo Sapien

<400> 6  
 Met Ala Arg Cys Phe Ser Leu Val Leu Leu Leu Thr Ser Ile Trp  
 1 5 10 15  
 Thr Thr Arg Leu Leu Val Gln Gly Ser Leu Arg Ala Glu Glu Leu  
 20 25 30  
 Ser Ile Gln Val Ser Cys Arg Ile Met Gly Ile Thr Leu Val Ser  
 35 40 45  
 Lys Lys Ala Asn Gln Gln Leu Asn Phe Thr Glu Ala Lys Glu Ala  
 50 55 60  
 Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val Glu  
 65 70 75  
 Thr Ala Leu Lys Ala Ser Phe Glu Thr Cys Ser Tyr Gly Trp Val  
 80 85 90  
 Gly Asp Gly Phe Val Val Ile Ser Arg Ile Ser Pro Asn Pro Lys  
 95 100 105  
 Cys Gly Lys Asn Gly Val Gly Val Leu Ile Trp Lys Val Pro Val  
 110 115 120  
 Ser Arg Gln Phe Ala Ala Tyr Cys Tyr Asn Ser Ser Asp Thr Trp  
 125 130 135

Thr Asn Ser Cys Ile Pro Glu Ile Ile Thr Thr Lys Asp Pro Ile	140	145	150
Phe Asn Thr Gln Thr Ala Thr Gln Thr Thr Glu Phe Ile Val Ser	155	160	165
Asp Ser Thr Tyr Ser Val Ala Ser Pro Tyr Ser Thr Ile Pro Ala	170	175	180
Pro Thr Thr Thr Pro Pro Ala Pro Ala Ser Thr Ser Ile Pro Arg	185	190	195
Arg Lys Lys Leu Ile Cys Val Thr Glu Val Phe Met Glu Thr Ser	200	205	210
Thr Met Ser Thr Glu Thr Glu Pro Phe Val Glu Asn Lys Ala Ala	215	220	225
Phe Lys Asn Glu Ala Ala Gly Phe Gly Gly Val Pro Thr Ala Leu	230	235	240
Leu Val Leu Ala Leu Leu Phe Phe Gly Ala Ala Ala Gly Leu Gly	245	250	255
Phe Cys Tyr Val Lys Arg Tyr Val Lys Ala Phe Pro Phe Thr Asn	260	265	270
Lys Asn Gln Gln Lys Glu Met Ile Glu Thr Lys Val Val Lys Glu	275	280	285
Glu Lys Ala Asn Asp Ser Asn Pro Asn Glu Glu Ser Lys Lys Thr	290	295	300
Asp Lys Asn Pro Glu Glu Ser Lys Ser Pro Ser Lys Thr Thr Val	305	310	315
Arg Cys Leu Glu Ala Glu Val	320		

<210> 7  
 <211> 2586  
 <212> DNA  
 <213> Homo Sapien

<400> 7  
 cgccgcgctc ccgcacccgc ggcccgccca ccgcgcgct cccgcattctg 50  
 cacc'cgcagc ccggcggcct cccggcgga gcgagcagat ccagtcgggc 100  
 ccgcagcgca actcggtcca gtcggggcgg cggctgcggg cgagagcgg 150  
 agatgcagcg gcttggggcc accctgctgt gcctgctgct ggcgggcggc 200  
 gtccccacgg cccccgcgc cgctccgacg gcgacctcgg ctccagtcaa 250  
 gccggggcgg gctctcagct acccgcagga ggaggccacc ctcaatgaga 300



tgttccgcga ggttgaggaa ctgatggagg acacgcagca caaattgcgc 350  
 agcgcggttg aagagatgga ggcagaagaa gctgctgcta aagcatcatc 400  
 agaagtgaac ctggcaaact tacctcccag ctatcacaat gagaccaaca 450  
 cagacacgaa ggttggaat aataccatcc atgtgcaccg agaaattcac 500  
 aagataacca acaaccagac tggacaaatg gtcttttcag agacagtatt 550  
 cacatctgtg ggagacgaag aaggcagaag gagccacgag tgcattcatc 600  
 acgaggactg tgggcccagc atgtactgcc agtttgccag cttccagtac 650  
 acctgccagc catgccgggg ccagaggatg ctctgcaccc gggacagtga 700  
 gtgctgtgga gaccagctgt gtgtctgggg tcaactgcacc aaaatggcca 750  
 ccaggggcag caatgggacc atctgtgaca accagaggga ctgccagccg 800  
 gggctgtgct gtgccttcca gagaggcctg ctgttccctg tgtgcacacc 850  
 cctgccctg gagggcgagc tttgccatga ccccgccagc cggcttcttg 900  
 acctcatcac ctgggagcta gagcctgatg gagccttgga ccgatgccct 950  
 tgtgccagtg gcctcctctg ccagccccac agccacagcc tgggtgtatgt 1000  
 gtgcaagccg accttcgtgg ggagccgtga ccaagatggg gagatcctgc 1050  
 tgcccagaga ggtccccgat gagtatgaag ttggcagctt catggaggag 1100  
 gtgcgccagg agctggagga cctggagagg agcctgactg aagagatggc 1150  
 gctgggggag cctgcggctg ccgccgctgc actgctggga ggggaagaga 1200  
 tttagatctg gaccaggctg tgggtagatg tgcaatagaa atagctaatt 1250  
 tatttcccca ggtgtgtgct ttaggcgtgg gctgaccagg cttcttctta 1300  
 catcttcttc ccagtaagtt tcccctctgg cttgacagca tgagggtgtt 1350  
 tgcatttggt cagctcccc aggctgttct ccaggcttca cagtctggtg 1400  
 cttgggagag tcaggcaggg ttaaactgca ggagcagttt gccacccttg 1450  
 tccagattat tggctgcttt gcctctacca gttggcagac agccgtttgt 1500  
 tctacatggc tttgataatt gtttgagggg aggagatgga aacaatgtgg 1550  
 agtctccctc tgattggttt tggggaaatg tggagaagag tgccctgctt 1600  
 tgcaaacatc aacctggcaa aaatgcaaca aatgaatttt ccacgcagtt 1650  
 ctttccatgg gcataggtaa gctgtgcctt cagctgttgc agatgaaatg 1700  
 ttctgttcac cctgcattac atgtgtttat tcatccagca gtgttgctca 1750

gctcctacct ctgtgccagg gcagcatttt catatccaag atcaattccc 1800  
 tctctcagca cagcctgggg aggggggtcat tgttctcctc gtccatcagg 1850  
 gatctcagag gctcagagac tgcaagctgc ttgcccagg cacacagcta 1900  
 gtgaagacca gagcagtttc atctgggtgt gactctaagc tcagtgtctt 1950  
 ctccactacc ccacaccagc cttgggtgcc ccaaaagtgc tccccaaaag 2000  
 gaaggagaat gggatttttc ttgagggcatg cacatctgga attaaggtca 2050  
 aactaattct cacatccctc taaaagtaaa ctactgttag gaacagcagt 2100  
 gttctcacag tgtggggcag cgcctcttct aatgaagaca atgatattga 2150  
 cactgtccct ctttggcagt tgcattagta actttgaaag gtatatgact 2200  
 gagcgtagca tacagggttaa cctgcagaaa cagtacttag gtaattgtag 2250  
 ggcgaggatt ataaatgaaa ttgcaaaat cacttagcag caactgaaga 2300  
 caattatcaa ccacgtggag aaaatcaaac cgagcagggc tgtgtgaaac 2350  
 atggttgtaa tatgcgactg cgaacactga actctacgcc actccacaaa 2400  
 tgatgttttc aggtgtcatg gactgttgcc accatgtatt catccagagt 2450  
 tcttaaagtt taaagttgca catgattgta taagcatgct ttctttgagt 2500  
 tttaaattat gtataaacat aagttgcatt tagaaatcaa gcataaatca 2550  
 cttcaactgc aaaaaaaaaa aaaaaaaaaa aaaaaa 2586

<210> 8  
 <211> 350  
 <212> PRT  
 <213> Homo Sapien

<400> 8  
 Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala  
 1 5 10 15  
 Ala Val Pro Thr Ala Pro Ala Pro Ala Pro Thr Ala Thr Ser Ala  
 20 25 30  
 Pro Val Lys Pro Gly Pro Ala Leu Ser Tyr Pro Gln Glu Glu Ala  
 35 40 45  
 Thr Leu Asn Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp  
 50 55 60  
 Thr Gln His Lys Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu  
 65 70 75  
 Glu Ala Ala Ala Lys Ala Ser Ser Glu Val Asn Leu Ala Asn Leu

80										85					90				
Pro	Pro	Ser	Tyr	His	Asn	Glu	Thr	Asn	Thr	Asp	Thr	Lys	Val	Gly					
				95					100					105					
Asn	Asn	Thr	Ile	His	Val	His	Arg	Glu	Ile	His	Lys	Ile	Thr	Asn					
				110					115					120					
Asn	Gln	Thr	Gly	Gln	Met	Val	Phe	Ser	Glu	Thr	Val	Ile	Thr	Ser					
				125					130					135					
Val	Gly	Asp	Glu	Glu	Gly	Arg	Arg	Ser	His	Glu	Cys	Ile	Ile	Asp					
				140					145					150					
Glu	Asp	Cys	Gly	Pro	Ser	Met	Tyr	Cys	Gln	Phe	Ala	Ser	Phe	Gln					
				155					160					165					
Tyr	Thr	Cys	Gln	Pro	Cys	Arg	Gly	Gln	Arg	Met	Leu	Cys	Thr	Arg					
				170					175					180					
Asp	Ser	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp	Gly	His	Cys					
				185					190					195					
Thr	Lys	Met	Ala	Thr	Arg	Gly	Ser	Asn	Gly	Thr	Ile	Cys	Asp	Asn					
				200					205					210					
Gln	Arg	Asp	Cys	Gln	Pro	Gly	Leu	Cys	Cys	Ala	Phe	Gln	Arg	Gly					
				215					220					225					
Leu	Leu	Phe	Pro	Val	Cys	Thr	Pro	Leu	Pro	Val	Glu	Gly	Glu	Leu					
				230					235					240					
Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu					
				245					250					255					
Leu	Glu	Pro	Asp	Gly	Ala	Leu	Asp	Arg	Cys	Pro	Cys	Ala	Ser	Gly					
				260					265					270					
Leu	Leu	Cys	Gln	Pro	His	Ser	His	Ser	Leu	Val	Tyr	Val	Cys	Lys					
				275					280					285					
Pro	Thr	Phe	Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu					
				290					295					300					
Pro	Arg	Glu	Val	Pro	Asp	Glu	Tyr	Glu	Val	Gly	Ser	Phe	Met	Glu					
				305					310					315					
Glu	Val	Arg	Gln	Glu	Leu	Glu	Asp	Leu	Glu	Arg	Ser	Leu	Thr	Glu					
				320					325					330					
Glu	Met	Ala	Leu	Gly	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Leu					
				335					340					345					
Gly	Gly	Glu	Glu	Ile															
				350															

<210> 9

<211> 1395  
<212> DNA  
<213> Homo Sapien

<400> 9

```
cggacgcgtg ggcggacgcg tgggggctgt gagaaagtgc caataaatac 50
atcatgcaac cccacggccc accttgtgaa ctctctgtgc ccagggctga 100
tgtgcgtctt ccagggctac tcatccaaag gcctaataca acgttctgtc 150
ttcaatctgc aaatctatgg ggtcctgggg ctcttctgga cccttaactg 200
ggtactggcc ctggggccaat ggcctctcgc tggagccttt gcctccttct 250
actgggcctt ccacaagccc caggacatcc ctaccttccc cttaatctct 300
gccttcatcc gcacactcgc ttaccacact gggtcattgg catttgagc 350
cctcatcctg accttgtgc agatagcccg ggatcatctg gagtatattg 400
accacaagct cagaggagtg cagaacctg tagcccgctg catcatgtgc 450
tgtttcaagt gctgcctctg gtgtctggaa aaatttatca agttcctaaa 500
ccgcaatgca tacatcatga tcgccatcta cgggaagaat ttctgtgtct 550
cagccaaaaa tgcgttcatg ctactcatgc gaaacattgt cagggtggtc 600
gtcctggaca aagtcacaga cctgctgctg ttctttggga agctgctggt 650
ggtcggaggc gtgggggtcc tgtccttctt tttttctcc ggtcgcctcc 700
cggggctggg taaagacttt aagagccccc acctcaacta ttactggctg 750
cccatcatga cctccatcct gggggcctat gtcctcgcca gcggcttctt 800
cagcgttttc ggcattgtgtg tggacacgct ctctctctgc ttcttggaag 850
acctggagcg gaacaacggc tccctggacc ggccctacta catgtccaag 900
agccttctaa agattctggg caagaagaac gaggcgcccc cggacaacaa 950
gaagaggaag aagtgcacgc tccggccctg atccaggact gcaccccacc 1000
cccaccgtcc agccatccaa cctcacttcg ccttacaggt ctccattttg 1050
tggtaaaaaa aggttttagg ccaggcgccg tggctcacgc ctgtaataca 1100
acactttgag aggctgaggc gggcggatca cctgagtcag gagttcgaga 1150
ccagcctggc caacatggtg aaacctcgt ctctattaaa aatacaaaaa 1200
ttagccgaga gtggtggcat gcacctgtca tcccagctac tcgggaggct 1250
gaggcaggag aatcgcttga acccgggagg cagagggtgc agtgagccga 1300
```

gatcgcgcca ctgcactcca acctgggtga cagactctgt ctccaaaaca 1350

aaacaaacaa acaaaaagat tttattaaag atattttgtt aactc 1395

<210> 10

<211> 321

<212> PRT

<213> Homo Sapien

<400> 10

Arg	Thr	Arg	Gly	Arg	Thr	Arg	Gly	Gly	Cys	Glu	Lys	Val	Pro	Ile
1				5					10					15

Asn	Thr	Ser	Cys	Asn	Pro	Thr	Ala	His	Leu	Val	Asn	Ser	Ser	Cys
				20					25					30

Pro	Gly	Leu	Met	Cys	Val	Phe	Gln	Gly	Tyr	Ser	Ser	Lys	Gly	Leu
				35					40					45

Ile	Gln	Arg	Ser	Val	Phe	Asn	Leu	Gln	Ile	Tyr	Gly	Val	Leu	Gly
				50					55					60

Leu	Phe	Trp	Thr	Leu	Asn	Trp	Val	Leu	Ala	Leu	Gly	Gln	Cys	Val
				65					70					75

Leu	Ala	Gly	Ala	Phe	Ala	Ser	Phe	Tyr	Trp	Ala	Phe	His	Lys	Pro
				80					85					90

Gln	Asp	Ile	Pro	Thr	Phe	Pro	Leu	Ile	Ser	Ala	Phe	Ile	Arg	Thr
				95					100					105

Leu	Arg	Tyr	His	Thr	Gly	Ser	Leu	Ala	Phe	Gly	Ala	Leu	Ile	Leu
				110					115					120

Thr	Leu	Val	Gln	Ile	Ala	Arg	Val	Ile	Leu	Glu	Tyr	Ile	Asp	His
				125					130					135

Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys
				140					145					150

Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe
				155					160					165

Leu	Asn	Arg	Asn	Ala	Tyr	Ile	Met	Ile	Ala	Ile	Tyr	Gly	Lys	Asn
				170					175					180

Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn
				185					190					195

Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu
				200					205					210

Phe	Phe	Gly	Lys	Leu	Leu	Val	Val	Gly	Gly	Val	Gly	Val	Leu	Ser
				215					220					225

Phe	Phe	Phe	Phe	Ser	Gly	Arg	Ile	Pro	Gly	Leu	Gly	Lys	Asp	Phe
				230					235					240

Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser	
				245					250					255	
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe	
				260					265					270	
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu	
				275					280					285	
Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys	
				290					295					300	
Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp	
				305					310					315	
Asn	Lys	Lys	Arg	Lys	Lys										
				320											

<210> 11  
 <211> 1901  
 <212> DNA  
 <213> Homo Sapien

<400> 11  
 gccccgcgcc cggcgccggg cgcccgaagc cgggagccac cgccatgggg 50  
 gcctgcctgg gagcctgctc cctgctcagc tgcgcgtcct gcctctgcgg 100  
 ctctgcccc tgcacacctgt gcagctgctg ccccgccagc cgcaactcca 150  
 ccgtgagccg cctcatcttc acgtttcttc ttttcttggg ggtgctggtg 200  
 tccatcatta tgctgagccc gggcgtggag agtcagctct acaagctgcc 250  
 ctgggtgtgt gaggaggggg cgggatccc caccgtcctg cagggccaca 300  
 tcgactgtgg ctccctgctt ggctaccgag ctgtctaccg catgtgcttc 350  
 gccacggcgg ccttcttctt cttctttttt accctgctca tgctctgcgt 400  
 gagcagcagc cgggaccccc gggctgccat ccagaatggg ttttggttct 450  
 ttaagtctct gatcctgggt ggccctaccg tgggtgcctt ctacatccct 500  
 gacggctcct tcaccaacat ctggttctac ttcggcgtcg tgggctcctt 550  
 cctcttcata ctcatccagc tgggtgctgct catcgacttt gcgcactcct 600  
 ggaaccagcg gtggctgggc aaggccgagg agtgcgattc ccgtgcctgg 650  
 tacgcaggcc ttttcttctt cactctcttc ttctacttgc tgtcgatcgc 700  
 ggccgtggcg ctgatgttca tgtactacac tgagcccagc ggctgccacg 750  
 agggcaaggt cttcatcagc ctcaacctca ccttctgtgt ctgcgtgtcc 800  
 atcgctgctg tcctgcccaa ggtccaggac gccagccca actcgggtct 850

gctgcaggcc tgggtcatca ccctctacac catgtttgtc acctggtcag 900  
 ccctatccag tatccctgaa cagaaatgca acccccatTTT gccaaaccag 950  
 ctgggcaacg agacagttgt ggcaggcccc gagggctatg agaccagtg 1000  
 gtgggatgcc ccgagcattg tgggcctcat catcttctc ctgtgcaccc 1050  
 .tcttcatcag tctgcgctcc tcagaccacc ggcaggtgaa cagcctgatg 1100  
 cagaccgagg agtgcccacc tatgctagac gccacacagc agcagcagca 1150  
 gcagggtggca gcctgtgagg gccgggcctt tgacaacgag caggacggcg 1200  
 tcacctacag ctactccttc ttccacttct gcctgggtgct ggccctcactg 1250  
 cacgtcatga tgacgctcac caactgggtac aagcccgggtg agaccggaa 1300  
 gatgatcagc acgtggaccg ccgtgtgggt gaagatctgt gccagctggg 1350  
 cagggtgct cctctacctg tggaccctgg tagccccact cctcctgcgc 1400  
 aaccgcgact tcagctgagg cagcctcaca gcctgccatc tggtgccctcc 1450  
 tgccacctgg tgccctcctgg ctcggtgaca gccaacctgc cccctcccca 1500  
 caccaatcag ccaggctgag cccccacccc tgccccagct ccaggacctg 1550  
 cccctgagcc gggccttcta gtcgtagtgc cttcagggtc cgaggagcat 1600  
 caggctcctg cagagcccca tcccccgcc acaccacac ggtggagctg 1650  
 cctcttctt cccctcctcc ctgttgccca tactcagcat ctcggatgaa 1700  
 agggctccct tgtctcagg ctccacggga gcggggctgc tggagagagc 1750  
 ggggaactcc caccacagtg gggcatccgg cactgaagcc ctggtgttcc 1800  
 tggtcacgtc cccaggggga cctgcccccc ttctggact tcgtgcctta 1850  
 ctgagtctct aagactTTTT ctaataaaca agccagtgcg tgtaaaaaaa 1900

a 1901

<210> 12

<211> 457

<212> PRT

<213> Homo Sapien

<400> 12

Met	Gly	Ala	Cys	Leu	Gly	Ala	Cys	Ser	Leu	Leu	Ser	Cys	Ala	Ser
1				5					10				15	

Cys	Leu	Cys	Gly	Ser	Ala	Pro	Cys	Ile	Leu	Cys	Ser	Cys	Cys	Pro
				20					25					30

Ala Ser Arg Asn Ser Thr Val Ser Arg Leu Ile Phe Thr Phe Phe

35										40					45				
Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly					
				50					55					60					
Val	Glu	Ser	Gln	Leu	Tyr	Lys	Leu	Pro	Trp	Val	Cys	Glu	Glu	Gly					
				65					70					75					
Ala	Gly	Ile	Pro	Thr	Val	Leu	Gln	Gly	His	Ile	Asp	Cys	Gly	Ser					
				80					85					90					
Leu	Leu	Gly	Tyr	Arg	Ala	Val	Tyr	Arg	Met	Cys	Phe	Ala	Thr	Ala					
				95					100					105					
Ala	Phe	Phe	Phe	Phe	Phe	Phe	Thr	Leu	Leu	Met	Leu	Cys	Val	Ser					
				110					115					120					
Ser	Ser	Arg	Asp	Pro	Arg	Ala	Ala	Ile	Gln	Asn	Gly	Phe	Trp	Phe					
				125					130					135					
Phe	Lys	Phe	Leu	Ile	Leu	Val	Gly	Leu	Thr	Val	Gly	Ala	Phe	Tyr					
				140					145					150					
Ile	Pro	Asp	Gly	Ser	Phe	Thr	Asn	Ile	Trp	Phe	Tyr	Phe	Gly	Val					
				155					160					165					
Val	Gly	Ser	Phe	Leu	Phe	Ile	Leu	Ile	Gln	Leu	Val	Leu	Leu	Ile					
				170					175					180					
Asp	Phe	Ala	His	Ser	Trp	Asn	Gln	Arg	Trp	Leu	Gly	Lys	Ala	Glu					
				185					190					195					
Glu	Cys	Asp	Ser	Arg	Ala	Trp	Tyr	Ala	Gly	Leu	Phe	Phe	Phe	Thr					
				200					205					210					
Leu	Leu	Phe	Tyr	Leu	Leu	Ser	Ile	Ala	Ala	Val	Ala	Leu	Met	Phe					
				215					220					225					
Met	Tyr	Tyr	Thr	Glu	Pro	Ser	Gly	Cys	His	Glu	Gly	Lys	Val	Phe					
				230					235					240					
Ile	Ser	Leu	Asn	Leu	Thr	Phe	Cys	Val	Cys	Val	Ser	Ile	Ala	Ala					
				245					250					255					
Val	Leu	Pro	Lys	Val	Gln	Asp	Ala	Gln	Pro	Asn	Ser	Gly	Leu	Leu					
				260					265					270					
Gln	Ala	Ser	Val	Ile	Thr	Leu	Tyr	Thr	Met	Phe	Val	Thr	Trp	Ser					
				275					280					285					
Ala	Leu	Ser	Ser	Ile	Pro	Glu	Gln	Lys	Cys	Asn	Pro	His	Leu	Pro					
				290					295					300					
Thr	Gln	Leu	Gly	Asn	Glu	Thr	Val	Val	Ala	Gly	Pro	Glu	Gly	Tyr					
				305					310					315					
Glu	Thr	Gln	Trp	Trp	Asp	Ala	Pro	Ser	Ile	Val	Gly	Leu	Ile	Ile					



	320		325		330
Phe Leu Leu Cys Thr Leu Phe Ile Ser Leu Arg Ser Ser Asp His					
	335		340		345
Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met					
	350		355		360
Leu Asp Ala Thr Gln Gln Gln Gln Gln Gln Val Ala Ala Cys Glu					
	365		370		375
Gly Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr					
	380		385		390
Ser Phe Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met					
	395		400		405
Met Thr Leu Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met					
	410		415		420
Ile Ser Thr Trp Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp					
	425		430		435
Ala Gly Leu Leu Leu Tyr Leu Trp Thr Leu Val Ala Pro Leu Leu					
	440		445		450
Leu Arg Asn Arg Asp Phe Ser					
	455				

<210> 13  
 <211> 1572  
 <212> DNA  
 <213> Homo Sapien

<400> 13  
 cgggccagcc tggggcggcc ggccaggaac caccggttaa ggtgtcttct 50  
 ctttagggat ggtgaggttg gaaaaagact cctgtaacct tctccagga 100  
 tgaaccacct gccagaagac atggagaacg ctctcaccgg gagccagagc 150  
 tcccatgctt ctctgcgcaa tatccattcc atcaacccca cacaactcat 200  
 ggccaggatt gagtcctatg aaggaaggga aaagaaaggc atatctgatg 250  
 tcaggaggac tttctgtttg tttgtcacct ttgacctctt attcgtaaca 300  
 ttactgtgga taatagagtt aaatgtgaat ggaggcattg agaacacatt 350  
 agagaaggag gtgatgcagt atgactacta ttcttcatat tttgatatat 400  
 ttcttctggc agtttttcga tttaaagtgt taatacttgc atatgctgtg 450  
 tgcagactgc gccattggtg ggcaatagcg ttgacaacgg cagtgaccag 500  
 tgccttttta ctagcaaaag tgatcctttc gaagcttttc tctcaagggg 550

cttttggcta tgtgctgccc atcatttcat tcatccttgc ctggattgag 600  
 acgtgggttcc tggatttcaa agtgttacct caagaagcag aagaagaaaa 650  
 cagactcctg atagttcagg atgcttcaga gagggcagca cttatacctg 700  
 gtgggtctttc tgatggtcag ttttattccc ctctgaatc cgaagcagga 750  
 tctgaagaag ctgaagaaaa acaggacagt gagaaaccac ttttagaact 800  
 atgagtacta cttttgttaa atgtgaaaaa ccctcacaga aagtcacga 850  
 ggcaaaaaga ggcaggcagt ggagtctccc tgctgacagt aaagttgaaa 900  
 tggtgacgtc cactgctggc tttattgaac agctaataaa gatttattta 950  
 ttgtaatacc tcacaaacgt tgtaccatat ccatgcacat ttagttgcct 1000  
 gcctgtggct ggtaaggtaa tgtcatgatt catcctctct tcagtgagac 1050  
 tgagcctgat gtgttaacaa ataggtgaag aaagtcttgt gctgtattcc 1100  
 taatcaaaag acttaatata ttgaagtaac acttttttag taagcaagat 1150  
 acctttttat ttcaattcac agaattggaat ttttttgttt catgtctcag 1200  
 atttattttg tatttctttt ttaacactct acatttccct tgttttttaa 1250  
 ctcatgcaca tgtgctcttt gtacagtttt aaaaagtgtg ataaaatctg 1300  
 acatgtcaat gtggctagtt ttatttttct tgttttgcat tatgtgtatg 1350  
 gcctgaagtg ttggacttgc aaaaggggaa gaaaggaatt gcgaatacat 1400  
 gtaaaatgtc accagacatt tgtattattt ttatcatgaa atcatgtttt 1450  
 tctctgattg ttctgaaatg ttctaaatac tcttattttg aatgcacaaa 1500  
 atgacttaaa ccattcatat catgtttcct ttgcgttcag ccaatttcaa 1550  
 ttaaaatgaa ctaaattaaa aa 1572

<210> 14

<211> 234

<212> PRT

<213> Homo Sapien

<400> 14

Met	Asn	His	Leu	Pro	Glu	Asp	Met	Glu	Asn	Ala	Leu	Thr	Gly	Ser
1				5				10					15	

Gln	Ser	Ser	His	Ala	Ser	Leu	Arg	Asn	Ile	His	Ser	Ile	Asn	Pro
			20					25					30	

Thr	Gln	Leu	Met	Ala	Arg	Ile	Glu	Ser	Tyr	Glu	Gly	Arg	Glu	Lys
			35				40						45	

Lys	Gly	Ile	Ser	Asp	Val	Arg	Arg	Thr	Phe	Cys	Leu	Phe	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50					55					60				
Phe	Asp	Leu	Leu	Phe	Val	Thr	Leu	Leu	Trp	Ile	Ile	Glu	Leu	Asn
				65					70					75
Val	Asn	Gly	Gly	Ile	Glu	Asn	Thr	Leu	Glu	Lys	Glu	Val	Met	Gln
				80					85					90
Tyr	Asp	Tyr	Tyr	Ser	Ser	Tyr	Phe	Asp	Ile	Phe	Leu	Leu	Ala	Val
				95					100					105
Phe	Arg	Phe	Lys	Val	Leu	Ile	Leu	Ala	Tyr	Ala	Val	Cys	Arg	Leu
				110					115					120
Arg	His	Trp	Trp	Ala	Ile	Ala	Leu	Thr	Thr	Ala	Val	Thr	Ser	Ala
				125					130					135
Phe	Leu	Leu	Ala	Lys	Val	Ile	Leu	Ser	Lys	Leu	Phe	Ser	Gln	Gly
				140					145					150
Ala	Phe	Gly	Tyr	Val	Leu	Pro	Ile	Ile	Ser	Phe	Ile	Leu	Ala	Trp
				155					160					165
Ile	Glu	Thr	Trp	Phe	Leu	Asp	Phe	Lys	Val	Leu	Pro	Gln	Glu	Ala
				170					175					180
Glu	Glu	Glu	Asn	Arg	Leu	Leu	Ile	Val	Gln	Asp	Ala	Ser	Glu	Arg
				185					190					195
Ala	Ala	Leu	Ile	Pro	Gly	Gly	Leu	Ser	Asp	Gly	Gln	Phe	Tyr	Ser
				200					205					210
Pro	Pro	Glu	Ser	Glu	Ala	Gly	Ser	Glu	Glu	Ala	Glu	Glu	Lys	Gln
				215					220					225
Asp	Ser	Glu	Lys	Pro	Leu	Leu	Glu	Leu						
				230										

<210> 15  
 <211> 2768  
 <212> DNA  
 <213> Homo Sapien

<400> 15  
 actcgaacgc agttgcttcg ggacccagga cccctcggg cccgaccgc 50  
 caggaaagac tgaggccgcg gcctgccccg cccggctccc tgcgccgcg 100  
 ccgcctcccc ggacagaaga tgtgctccag ggtccctctg ctgctgccgc 150  
 tgctcctgct actggcctg gggcctggg tgcagggctg cccatccggc 200  
 tgccagtgca gccagccaca gacagtcttc tgcactgcc gccaggggac 250  
 cacggtgccc cgagacgtgc caccgcacac ggtggggctg tacgtctttg 300  
 agaacggcat caccatgctc gacgcaggca gctttgccgg cctgccgggc 350

ctgcagctcc tggacctgtc acagaaccag atcgccagcc tgcccagcgg 400  
ggtcttccag ccactcgcca acctcagcaa cctggacctg acggccaaca 450  
ggctgcatga aatcaccaat gagaccttcc gtggcctgcg gcgcctcgag 500  
cgctctacc tgggcaagaa ccgcatccgc cacatccagc ctggtgcctt 550  
cgacacgctc gaccgcctcc tggagctcaa gctgcaggac aacgagctgc 600  
gggcactgcc cccgctgcgc ctgccccgcc tgctgctgct ggacctcagc 650  
cacaacagcc tcttggccct ggagcccggc atcctggaca ctgccaacgt 700  
ggaggcgctg cggctggctg gtctggggct gcagcagctg gacgaggggc 750  
tcttcagccg cttgcgcaac ctccacgacc tggatgtgtc cgacaaccag 800  
ctggagcgag tgccacctgt gatccgaggc ctccggggcc tgacgcgcct 850  
gcggttgcc ggcaacaccc gcattgcca gctgcggccc gaggacctgg 900  
ccggcctggc tgccctgcag gagctggatg tgagcaacct aagcctgcag 950  
gccctgctg gcgacctctc gggcctcttc ccccgctgc ggctgctggc 1000  
agctgccgc aacccttca actgogtgtg cccctgagc tggtttgcc 1050  
cctgggtgcg cgagagccac gtcacactgg ccagccctga ggagacgcgc 1100  
tgccacttcc cgccaagaa cgctggccgg ctgctcctgg agcttgacta 1150  
cgccgacttt ggtgcccag ccaccaccac cacagccaca gtgcccacca 1200  
cgaggcccg ggtgcgggag cccacagcct tgtcttctag cttggctcct 1250  
acctggctta gcccacagc gccggccact gaggccccca gcccgccctc 1300  
cactgcccc cagactgtag ggcctgtccc ccagccccag gactgcccac 1350  
cgtccacctg cctcaatggg ggcacatgcc acctggggac acggcaccac 1400  
ctggcgctgt tgtgccccga aggettcacg ggcctgtact gtgagagcca 1450  
gatggggcag gggacacggc ccagccctac accagtacg ccgaggccac 1500  
cacggtcctt gaccctgggc atcgagccgg tgagccccac ctccctgcgc 1550  
gtggggctgc agcgtacct ccaggggagc tccgtgcagc tcaggagcct 1600  
ccgtctcacc tatcgcaacc tatcgggccc tgataagcgg ctggtgacgc 1650  
tgcgactgcc tgccctgcct gctgagtaca cggtcacca gctgcggccc 1700  
aacgccactt actccgtctg tgtcatgcct ttggggcccg ggcgggtgcc 1750

ggagggcgag gaggcctgcg gggaggccca tacaccccca gccgtccact 1800  
 ccaaccacgc ccagtcacc caggcccgcg agggcaacct gccgtcctc 1850  
 attgcgcccc cctggccgc ggtgctcctg gccgcgctgg ctgcggtggg 1900  
 ggcagcctac tgtgtgcggc gggggcgggc catggcagca gcggctcagg 1950  
 acaaagggca ggtggggcca ggggctgggc ccctggaact ggagggagtg 2000  
 aaggtcccct tggagccagg ccggaaggca acagagggcg gtggagaggc 2050  
 cctgcccagc gggctctgagt gtgaggtgcc actcatgggc ttcccagggc 2100  
 ctggcctcca gtcaccctc cacgcaaagc cctacatcta agccagagag 2150  
 agacagggca gctggggccg ggctctcagc cagtgagatg gccagcccc 2200  
 tcctgctgcc acaccacgta agttctcagt cccaacctcg gggatgtgtg 2250  
 cagacagggc tgtgtgacca cagctgggac ctgttccctc tggacctcg 2300  
 tctctcctc tgtgagatgc tgtggcccag ctgacgagcc ctaacgtccc 2350  
 cagaaccgag tgcctatgag gacagtgtcc gccctgccct ccgcaacgtg 2400  
 cagtccttgg gcacggcggg ccctgccatg tgctggtaac gcatgcctgg 2450  
 gtcttcttgg gctctccac tccaggcgga ccctgggggc cagtgaagga 2500  
 agtcccgga aagagcagag ggagagcggg taggcggctg tgtgactcta 2550  
 gtcttgccc caggaagcga aggaacaaaa gaaactggaa aggaagatgc 2600  
 tttaggaaca tgttttgctt ttttaaaata tatatattta taagagatcc 2650  
 tttccattt attctgggaa gatgtttttc aaactcagag acaaggactt 2700  
 tggtttttgt aagacaaacg atgatatgaa ggccttttgt aagaaaaaat 2750  
 aaaagatgaa gtgtgaaa 2768

<210> 16

<211> 673

<212> PRT

<213> Homo Sapien

<400> 16

Met	Cys	Ser	Arg	Val	Pro	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Leu
1				5					10				15	

Ala	Leu	Gly	Pro	Gly	Val	Gln	Gly	Cys	Pro	Ser	Gly	Cys	Gln	Cys
				20					25				30	

Ser	Gln	Pro	Gln	Thr	Val	Phe	Cys	Thr	Ala	Arg	Gln	Gly	Thr	Thr
				35					40				45	

Val	Pro	Arg	Asp	Val	Pro	Pro	Asp	Thr	Val	Gly	Leu	Tyr	Val	Phe	50	55	60
Glu	Asn	Gly	Ile	Thr	Met	Leu	Asp	Ala	Gly	Ser	Phe	Ala	Gly	Leu	65	70	75
Pro	Gly	Leu	Gln	Leu	Leu	Asp	Leu	Ser	Gln	Asn	Gln	Ile	Ala	Ser	80	85	90
Leu	Pro	Ser	Gly	Val	Phe	Gln	Pro	Leu	Ala	Asn	Leu	Ser	Asn	Leu	95	100	105
Asp	Leu	Thr	Ala	Asn	Arg	Leu	His	Glu	Ile	Thr	Asn	Glu	Thr	Phe	110	115	120
Arg	Gly	Leu	Arg	Arg	Leu	Glu	Arg	Leu	Tyr	Leu	Gly	Lys	Asn	Arg	125	130	135
Ile	Arg	His	Ile	Gln	Pro	Gly	Ala	Phe	Asp	Thr	Leu	Asp	Arg	Leu	140	145	150
Leu	Glu	Leu	Lys	Leu	Gln	Asp	Asn	Glu	Leu	Arg	Ala	Leu	Pro	Pro	155	160	165
Leu	Arg	Leu	Pro	Arg	Leu	Leu	Leu	Leu	Asp	Leu	Ser	His	Asn	Ser	170	175	180
Leu	Leu	Ala	Leu	Glu	Pro	Gly	Ile	Leu	Asp	Thr	Ala	Asn	Val	Glu	185	190	195
Ala	Leu	Arg	Leu	Ala	Gly	Leu	Gly	Leu	Gln	Gln	Leu	Asp	Glu	Gly	200	205	210
Leu	Phe	Ser	Arg	Leu	Arg	Asn	Leu	His	Asp	Leu	Asp	Val	Ser	Asp	215	220	225
Asn	Gln	Leu	Glu	Arg	Val	Pro	Pro	Val	Ile	Arg	Gly	Leu	Arg	Gly	230	235	240
Leu	Thr	Arg	Leu	Arg	Leu	Ala	Gly	Asn	Thr	Arg	Ile	Ala	Gln	Leu	245	250	255
Arg	Pro	Glu	Asp	Leu	Ala	Gly	Leu	Ala	Ala	Leu	Gln	Glu	Leu	Asp	260	265	270
Val	Ser	Asn	Leu	Ser	Leu	Gln	Ala	Leu	Pro	Gly	Asp	Leu	Ser	Gly	275	280	285
Leu	Phe	Pro	Arg	Leu	Arg	Leu	Leu	Ala	Ala	Ala	Arg	Asn	Pro	Phe	290	295	300
Asn	Cys	Val	Cys	Pro	Leu	Ser	Trp	Phe	Gly	Pro	Trp	Val	Arg	Glu	305	310	315
Ser	His	Val	Thr	Leu	Ala	Ser	Pro	Glu	Glu	Thr	Arg	Cys	His	Phe	320	325	330

Pro	Pro	Lys	Asn	Ala	Gly	Arg	Leu	Leu	Leu	Glu	Leu	Asp	Tyr	Ala		335	340	345
Asp	Phe	Gly	Cys	Pro	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Val	Pro	Thr		350	355	360
Thr	Arg	Pro	Val	Val	Arg	Glu	Pro	Thr	Ala	Leu	Ser	Ser	Ser	Leu		365	370	375
Ala	Pro	Thr	Trp	Leu	Ser	Pro	Thr	Ala	Pro	Ala	Thr	Glu	Ala	Pro		380	385	390
Ser	Pro	Pro	Ser	Thr	Ala	Pro	Pro	Thr	Val	Gly	Pro	Val	Pro	Gln		395	400	405
Pro	Gln	Asp	Cys	Pro	Pro	Ser	Thr	Cys	Leu	Asn	Gly	Gly	Thr	Cys		410	415	420
His	Leu	Gly	Thr	Arg	His	His	Leu	Ala	Cys	Leu	Cys	Pro	Glu	Gly		425	430	435
Phe	Thr	Gly	Leu	Tyr	Cys	Glu	Ser	Gln	Met	Gly	Gln	Gly	Thr	Arg		440	445	450
Pro	Ser	Pro	Thr	Pro	Val	Thr	Pro	Arg	Pro	Pro	Arg	Ser	Leu	Thr		455	460	465
Leu	Gly	Ile	Glu	Pro	Val	Ser	Pro	Thr	Ser	Leu	Arg	Val	Gly	Leu		470	475	480
Gln	Arg	Tyr	Leu	Gln	Gly	Ser	Ser	Val	Gln	Leu	Arg	Ser	Leu	Arg		485	490	495
Leu	Thr	Tyr	Arg	Asn	Leu	Ser	Gly	Pro	Asp	Lys	Arg	Leu	Val	Thr		500	505	510
Leu	Arg	Leu	Pro	Ala	Ser	Leu	Ala	Glu	Tyr	Thr	Val	Thr	Gln	Leu		515	520	525
Arg	Pro	Asn	Ala	Thr	Tyr	Ser	Val	Cys	Val	Met	Pro	Leu	Gly	Pro		530	535	540
Gly	Arg	Val	Pro	Glu	Gly	Glu	Glu	Ala	Cys	Gly	Glu	Ala	His	Thr		545	550	555
Pro	Pro	Ala	Val	His	Ser	Asn	His	Ala	Pro	Val	Thr	Gln	Ala	Arg		560	565	570
Glu	Gly	Asn	Leu	Pro	Leu	Leu	Ile	Ala	Pro	Ala	Leu	Ala	Ala	Val		575	580	585
Leu	Leu	Ala	Ala	Leu	Ala	Ala	Val	Gly	Ala	Ala	Tyr	Cys	Val	Arg		590	595	600
Arg	Gly	Arg	Ala	Met	Ala	Ala	Ala	Ala	Gln	Asp	Lys	Gly	Gln	Val		605	610	615

Gly	Pro	Gly	Ala	Gly	Pro	Leu	Glu	Leu	Glu	Gly	Val	Lys	Val	Pro
				620					625					630
Leu	Glu	Pro	Gly	Pro	Lys	Ala	Thr	Glu	Gly	Gly	Gly	Glu	Ala	Leu
				635					640					645
Pro	Ser	Gly	Ser	Glu	Cys	Glu	Val	Pro	Leu	Met	Gly	Phe	Pro	Gly
				650					655					660
Pro	Gly	Leu	Gln	Ser	Pro	Leu	His	Ala	Lys	Pro	Tyr	Ile		
				665					670					

<210> 17  
 <211> 1672  
 <212> DNA  
 <213> Homo Sapien

<400> 17  
 gcagcggcga ggcggcggtg gtggctgagt ccgtggtggc agaggcgaag 50  
 gcgacagctc atgcgggtcc ggatagggct gacgctgctg ctgtgtgagg 100  
 tgctgctgag cttggcctcg gcgtcctcgg atgaagaagg cagccaggat 150  
 gaatccttag attccaagac tactttgaca tcagatgagt cagtaaagga 200  
 ccatactact gcaggcagag tagttgctgg tcaaataattt cttgattcag 250  
 aagaatctga attagaatcc tctattcaag aagaggaaga cagcctcaag 300  
 agccaagagg gggaaagtgt cacagaagat atcagctttc tagagtctcc 350  
 aaatccagaa aacaaggact atgaagagcc aaagaaagta cggaaaccag 400  
 ctttgaccgc cattgaaggc acagcacatg gggagccctg ccacttcct 450  
 tttcttttcc tagataagga gtatgatgaa tgtacatcag atgggaggga 500  
 agatggcaga ctgtggtgtg ctacaaccta tgactacaaa gcagatgaaa 550  
 agtggggctt ttgtgaaact gaagaagagg ctgctaagag acggcagatg 600  
 caggaagcag aaatgatgta tcaaactgga atgaaaatcc ttaatggaag 650  
 caataagaaa agccaaaaaa gagaagcata tcggtatctc caaaaggcag 700  
 caagcatgaa ccataccaaa gccctggaga gagtgtcata tgctctttta 750  
 tttggtgatt acttgccaca gaatatccag gcagcgagag agatgtttga 800  
 gaagctgact gaggaaggct ctccaaggg acagactgct cttggctttc 850  
 tgtatgcctc tggacttggg gttaattcaa gtcaggcaaa ggctcttgta 900  
 tattatacat ttggagctct tgggggcaat ctaatagccc acatggtttt 950  
 ggtaagtaga ctttagtgga aggctaataa tattaacatc agaagaattt 1000



```

gtggtttata gcggccacaa ctttttcagc tttcatgac cagatttgct 1050
tgtattaaga ccaaatatcc agttgaactt ccttcaaatt cttgttaatg 1100
gatataacac atggaatcta catgtaaatg aaagttggtg gagtccacaa 1150
tttttcttta aaatgattag tttggctgat tgcccctaaa aagagagatc 1200
tgataaatgg ctctttttta attttctctg agttggaatt gtcagaatca 1250
ttttttacat tagattatca taattttaaa aatttttctt tagtttttca 1300
aaattttgta aatggtggct atagaaaaac aacatgaaat attatacaat 1350
attttgcaac aatgccctaa gaattgttaa aattcatgga gttatttgtg 1400
cagaatgact ccagagagct ctactttctg ttttttactt ttcattgattg 1450
gctgtcttcc catttattct ggtcatttat tgctagtac actgtgcctg 1500
cttcagtag tctcattttc cctattttgc taatttgtta ctttttcttt 1550
gctaatttgg aagattaact catttttaat aaaattatgt ctaagattaa 1600
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
aaaaaaaaaa aaaaaaaaaa aa 1672

```

```

<210> 18
<211> 301
<212> PRT
<213> Homo Sapien

```

```

<400> 18
Met Arg Val Arg Ile Gly Leu Thr Leu Leu Leu Cys Ala Val Leu
 1          5          10          15
Leu Ser Leu Ala Ser Ala Ser Ser Asp Glu Glu Gly Ser Gln Asp
          20          25          30

Glu Ser Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val
          35          40          45

Lys Asp His Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe
          50          55          60

Leu Asp Ser Glu Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu
          65          70          75

Glu Asp Ser Leu Lys Ser Gln Glu Gly Glu Ser Val Thr Glu Asp
          80          85          90

Ile Ser Phe Leu Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu
          95          100         105

Glu Pro Lys Lys Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly
          110         115         120

```

Thr	Ala	His	Gly	Glu	Pro	Cys	His	Phe	Pro	Phe	Leu	Phe	Leu	Asp	125	130	135
Lys	Glu	Tyr	Asp	Glu	Cys	Thr	Ser	Asp	Gly	Arg	Glu	Asp	Gly	Arg	140	145	150
Leu	Trp	Cys	Ala	Thr	Thr	Tyr	Asp	Tyr	Lys	Ala	Asp	Glu	Lys	Trp	155	160	165
Gly	Phe	Cys	Glu	Thr	Glu	Glu	Glu	Ala	Ala	Lys	Arg	Arg	Gln	Met	170	175	180
Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn	185	190	195
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu	200	205	210
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val	215	220	225
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln	230	235	240
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro	245	250	255
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly	260	265	270
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly	275	280	285
Ala	Leu	Gly	Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Val	Ser	Arg	290	295	300

Leu

<210> 19  
 <211> 1508  
 <212> DNA  
 <213> Homo Sapien

<400> 19  
 aattcagatt ttaagcccat tctgcagtgg aatttcatga actagcaaga 50  
 ggacaccatc ttcttgtatt atacaagaaa ggagtgtacc tatcacacac 100  
 agggggaaaa atgctctttt ggggtgctagg cctcctaata ctctgtgggt 150  
 ttctgtggac tcgtaaagga aaactaaaga ttgaagacat cactgataag 200  
 tacattttta tcaactggatg tgactcgggc tttggaaact tggcagccag 250  
 aacttttgat aaaaagggat ttcattgtaat cgctgcctgt ctgactgaat 300

caggatcaac agctttaag gcagaaacct cagagagact tcgtactgtg 350  
cttctggatg tgaccgaccc agagaatgtc aagaggactg cccagtgggt 400  
gaagaaccaa gttggggaga aaggtctctg gggctctgatc aataatgctg 450  
gtgttcccgg cgtgctggct cccactgact ggctgacact agaggactac 500  
agagaaccta ttgaagtga cctggttgga ctcatcagtg tgacactaaa 550  
tatgcttcct ttgggtcaaga aagctcaagg gagagttatt aatgtctcca 600  
gtgttggagg tcgccttgca atcgttggag ggggctatac tccatccaaa 650  
tatgcagtgg aagggttcaa tgacagctta agacgggaca tgaaagcttt 700  
tggtgtgcac gtctcatgca ttgaaccagg attgttcaaa acaaacttgg 750  
cagatccagt aaaggtaatt gaaaaaaaaac tcgccatttg ggagcagctg 800  
tctccagaca tcaacaaca atatggagaa gggttacattg aaaaaagtct 850  
agacaaactg aaaggcaata aatcctatgt gaacatggac ctctctccgg 900  
tggttagagt catggaccac gctctaaca gtctcttccc taagactcat 950  
tatgccgctg gaaaagatgc caaaattttc tggatacctc tgtctcacat 1000  
gccagcagct ttgcaagact ttttattggt gaaacagaaa gcagagctgg 1050  
ctaataccaa ggcagtgtga ctacagtaac cacaatgtc tcctccaggc 1100  
tatgaaattg gccgatttca agaacacatc tccttttcaa cccatttct 1150  
tatctgctcc aacctggact catttagatc gtgcttattt ggattgcaaa 1200  
agggagtccc accatcgctg gtggtatccc agggtccttg ctcaagtttt 1250  
ctttgaaaag gagggctgga atggtacatc acataggcaa gtcttgccct 1300  
gtatttaggc tttgcctgct tgggtgtgatg taagggaat tgaaagactt 1350  
gcccattcaa aatgatcttt accgtggcct gcccattgct tatgggtccc 1400  
agcatttaca gtaacttgtg aatgttaagt atcatctctt atctaaatat 1450  
taaaagataa gtcaacccaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500  
aaaaaaaa 1508

<210> 20

<211> 319

<212> PRT

<213> Homo Sapien

<400> 20

Met Leu Phe Trp Val Leu Gly Leu Leu Ile Leu Cys Gly Phe Leu

1	5	10	15
Trp Thr Arg Lys Gly Lys Leu Lys Ile Glu Asp Ile Thr Asp Lys	20	25	30
Tyr Ile Phe Ile Thr Gly Cys Asp Ser Gly Phe Gly Asn Leu Ala	35	40	45
Ala Arg Thr Phe Asp Lys Lys Gly Phe His Val Ile Ala Ala Cys	50	55	60
Leu Thr Glu Ser Gly Ser Thr Ala Leu Lys Ala Glu Thr Ser Glu	65	70	75
Arg Leu Arg Thr Val Leu Leu Asp Val Thr Asp Pro Glu Asn Val	80	85	90
Lys Arg Thr Ala Gln Trp Val Lys Asn Gln Val Gly Glu Lys Gly	95	100	105
Leu Trp Gly Leu Ile Asn Asn Ala Gly Val Pro Gly Val Leu Ala	110	115	120
Pro Thr Asp Trp Leu Thr Leu Glu Asp Tyr Arg Glu Pro Ile Glu	125	130	135
Val Asn Leu Phe Gly Leu Ile Ser Val Thr Leu Asn Met Leu Pro	140	145	150
Leu Val Lys Lys Ala Gln Gly Arg Val Ile Asn Val Ser Ser Val	155	160	165
Gly Gly Arg Leu Ala Ile Val Gly Gly Gly Tyr Thr Pro Ser Lys	170	175	180
Tyr Ala Val Glu Gly Phe Asn Asp Ser Leu Arg Arg Asp Met Lys	185	190	195
Ala Phe Gly Val His Val Ser Cys Ile Glu Pro Gly Leu Phe Lys	200	205	210
Thr Asn Leu Ala Asp Pro Val Lys Val Ile Glu Lys Lys Leu Ala	215	220	225
Ile Trp Glu Gln Leu Ser Pro Asp Ile Lys Gln Gln Tyr Gly Glu	230	235	240
Gly Tyr Ile Glu Lys Ser Leu Asp Lys Leu Lys Gly Asn Lys Ser	245	250	255
Tyr Val Asn Met Asp Leu Ser Pro Val Val Glu Cys Met Asp His	260	265	270
Ala Leu Thr Ser Leu Phe Pro Lys Thr His Tyr Ala Ala Gly Lys	275	280	285
Asp Ala Lys Ile Phe Trp Ile Pro Leu Ser His Met Pro Ala Ala			

	290		295		300
Leu	Gln	Asp	Phe	Leu	Leu
				Leu	Lys
				Gln	Lys
				Ala	Glu
				Leu	Ala
				Asn	
	305		310		315

Pro Lys Ala Val

<210> 21  
 <211> 1849  
 <212> DNA  
 <213> Homo Sapien

<400> 21  
 ctgaggcggc ggtagcatgg agggggagag tacgtcggcg gtgctctcgg 50  
 gctttgtgct cggcgcactc gctttccagc acctcaacac ggactcggac 100  
 acggaagggt ttcttcttgg ggaagtaaaa ggtgaagcca agaacagcat 150  
 tactgattcc caaatggatg atgttgaagt tgtttataca attgacattc 200  
 agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250  
 gaagtaaatg agcaagcact gaagaaaata ttatcaaagc tcaaaaagaa 300  
 tgtggtaggt tggtaaaaat tccgtcgtca ttcagatcag atcatgacgt 350  
 ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccac 400  
 gaccttggtt ttctgctatt aacaccaagt ataataacag aaagctgctc 450  
 tactcatcga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500  
 acagggtagc tttagtgggt gccaatctgg gcatgtctga acaactgggt 550  
 tataaaactg tatcagggtc ctgtatgtcc actggtttta gccgagcagt 600  
 acaaacacac agctctaaat tttttgaaga agatggatcc tttaaaggagg 650  
 tacataagat aaatgaaatg tatgcttcat tacaagagga attaaagagt 700  
 atatgcaaaa aagtgggaaga cagtgaacaa gcagtagata aactagtaaa 750  
 ggatgtaaac agattaaaac gagaaattga gaaaaggaga ggagcacaga 800  
 ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850  
 tttctttgtc aggcattacg gacctttttt ccaaattctg aatttcttca 900  
 ttcattgtgt atgtctttta aaaatagaca tgtttctaaa agtagctgta 950  
 actacaacca ccatctcgat gtagtagaca atctgacctt aatggtagaa 1000  
 cacactgaca ttctgaagc tagtccagct agtacaccac aaatcattaa 1050  
 gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggg 1100

tgtagatcac acaagacaaa cgatctaaag caaatactgg tagtagtaac 1150  
 caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200  
 aaagatgaag gggttttggtg aatattcacg gtctcttaca ttttgatcct 1250  
 ttttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300  
 atttctattg tttttactat gttgagctac ttgcagtaag ttcatttggt 1350  
 tttactatgt tcacctgttt gcagtaatac acagataact cttagtgcac 1400  
 ttacttcaca aagtactttt tcaaacatca gatgctttta tttccaaacc 1450  
 tttttttcac ctttctactaa gttgttgagg ggaaggctta cacagacaca 1500  
 ttcttttagaa ttggaaaagt gagaccaggc acagtggctc acacctgtaa 1550  
 tcccagcact tagggaagac aagtcaggag gattgattga agctaggagt 1600  
 tagagaccag cctgggcaac gtattgagac catgtctatt aaaaaataaa 1650  
 atggaaaagc aagaatagcc ttattttcaa aatatggaaa gaaatttata 1700  
 tgaaaattta tctgagtcac taaaattctc cttaagtgat acttttttag 1750  
 aagtagatta tggctagagt tgccagataa aatgctggat atcatgcaat 1800  
 aaatttgcaa aacatcatct aaaattttaa aaaaaaaaaa aaaaaaaaaa 1849

<210> 22

<211> 409

<212> PRT

<213> Homo Sapien

<400> 22

Met	Glu	Gly	Glu	Ser	Thr	Ser	Ala	Val	Leu	Ser	Gly	Phe	Val	Leu
1				5					10					15
Gly	Ala	Leu	Ala	Phe	Gln	His	Leu	Asn	Thr	Asp	Ser	Asp	Thr	Glu
				20					25					30
Gly	Phe	Leu	Leu	Gly	Glu	Val	Lys	Gly	Glu	Ala	Lys	Asn	Ser	Ile
				35					40					45
Thr	Asp	Ser	Gln	Met	Asp	Asp	Val	Glu	Val	Val	Tyr	Thr	Ile	Asp
				50					55					60
Ile	Gln	Lys	Tyr	Ile	Pro	Cys	Tyr	Gln	Leu	Phe	Ser	Phe	Tyr	Asn
				65					70					75
Ser	Ser	Gly	Glu	Val	Asn	Glu	Gln	Ala	Leu	Lys	Lys	Ile	Leu	Ser
				80					85					90
Asn	Val	Lys	Lys	Asn	Val	Val	Gly	Trp	Tyr	Lys	Phe	Arg	Arg	His
				95					100					105

Ser Asp Gln Ile	Met Thr Phe Arg Glu	Arg Leu Leu His Lys Asn	
	110	115	120
Leu Gln Glu His	Phe Ser Asn Gln Asp	Leu Val Phe Leu Leu Leu	
	125	130	135
Thr Pro Ser Ile	Ile Thr Glu Ser Cys	Ser Thr His Arg Leu Glu	
	140	145	150
His Ser Leu Tyr	Lys Pro Gln Lys Gly	Leu Phe His Arg Val Pro	
	155	160	165
Leu Val Val Ala	Asn Leu Gly Met Ser	Glu Gln Leu Gly Tyr Lys	
	170	175	180
Thr Val Ser Gly	Ser Cys Met Ser Thr	Gly Phe Ser Arg Ala Val	
	185	190	195
Gln Thr His Ser	Ser Lys Phe Phe Glu	Glu Asp Gly Ser Leu Lys	
	200	205	210
Glu Val His Lys	Ile Asn Glu Met Tyr	Ala Ser Leu Gln Glu Glu	
	215	220	225
Leu Lys Ser Ile	Cys Lys Lys Val Glu	Asp Ser Glu Gln Ala Val	
	230	235	240
Asp Lys Leu Val	Lys Asp Val Asn Arg	Leu Lys Arg Glu Ile Glu	
	245	250	255
Lys Arg Arg Gly	Ala Gln Ile Gln Ala	Ala Arg Glu Lys Asn Ile	
	260	265	270
Gln Lys Asp Pro	Gln Glu Asn Ile Phe	Leu Cys Gln Ala Leu Arg	
	275	280	285
Thr Phe Phe Pro	Asn Ser Glu Phe Leu	His Ser Cys Val Met Ser	
	290	295	300
Leu Lys Asn Arg	His Val Ser Lys Ser	Ser Cys Asn Tyr Asn His	
	305	310	315
His Leu Asp Val	Val Asp Asn Leu Thr	Leu Met Val Glu His Thr	
	320	325	330
Asp Ile Pro Glu	Ala Ser Pro Ala Ser	Thr Pro Gln Ile Ile Lys	
	335	340	345
His Lys Ala Leu	Asp Leu Asp Asp Arg	Trp Gln Phe Lys Arg Ser	
	350	355	360
Arg Leu Leu Asp	Thr Gln Asp Lys Arg	Ser Lys Ala Asn Thr Gly	
	365	370	375
Ser Ser Asn Gln	Asp Lys Ala Ser Lys	Met Ser Ser Pro Glu Thr	
	380	385	390

Asp	Glu	Glu	Ile	Glu	Lys	Met	Lys	Gly	Phe	Gly	Glu	Tyr	Ser	Arg
				395				400						405

Ser Pro Thr Phe

<210> 23  
 <211> 2651  
 <212> DNA  
 <213> Homo Sapien

<400> 23  
 ggcacagccg cgcgggcggag ggcagagtca gccgagccga gtccagccgg 50  
 acgagcggac cagcgcaggg cagcccaagc agcgcgcagc gaacgcccgc 100  
 cgccgcccac accctctgcg gtccccgcgg cgcttgccac ccttccctcc 150  
 ttccccgcgt ccccgctcg ccggccagtc agcttgccgg gttcgctgcc 200  
 ccgcgaaacc ccgaggtcac cagccgcgc ctctgcttcc ctgggcccgc 250  
 cgccgcctcc acgccctcct tctcccctgg cccggcgctt ggcaccgggg 300  
 accgttgctt gacgcgaggg ccagctctac ttttcgcccc gcgtctcttc 350  
 cgcttgctcg cctcttccac caactccaac tccttctccc tccagctcca 400  
 ctgctagtc cccgactccg ccagccctcg gcccgctgcc gtagcgccgc 450  
 ttcccgctcg gtcccaaagg tgggaacgcg tccgccccgg cccgcacat 500  
 ggcacggttc ggcttgcccg cgcttctctg caccctggca gtgctcagcg 550  
 ccgcgctgct ggctgccgag ctcaagtcga aaagttgctc ggaagtgcga 600  
 cgtctttacg tgtccaaagg cttcaacaag aacgatgccc ccctccacga 650  
 gatcaacggg gatcatttga agatctgtcc ccagggttct acctgctgct 700  
 ctcaagagat ggaggagaag tacagcctgc aaagtaaaga tgatttcaaa 750  
 agtgtggtca gcgaacagtg caatcatttg caagctgtct ttgcttcacg 800  
 ttacaagaag tttgatgaat tcttcaaaga actacttgaa aatgcagaga 850  
 aatccctgaa tgatatgttt gtgaagacat atggccattt atacatgcaa 900  
 aattctgagc tatttaaaga tctcttcgta gagttgaaac gttactacgt 950  
 ggtgggaaat gtgaacctgg aagaaatgct aaatgacttc tgggctcgcc 1000  
 tcctggagcg gatgttccgc ctggtgaact ccagtagcca ctttacagat 1050  
 gagtatctgg aatgtgtgag caagtatacg gagcagctga agcccttcgg 1100  
 agatgtccct cgcaaattga agctccaggt tactcgtgct tttgtagcag 1150



cccgtacttt cgtcaaggc ttagcgggtg cgggagatgt cgtgagcaag 1200  
 gtctccgtgg taaacccac agccagtggt acccatgccc tgttgaagat 1250  
 gatctactgc tccactgcc ggggtctcgt gactgtgaag ccatgttaca 1300  
 actactgctc aaacatcatg agaggctggt tggccaacca aggggatctc 1350  
 gatthttgaat ggaacaattt catagatgct atgctgatgg tggcagagag 1400  
 gctagagggg cttttcaaca ttgaatcggg catggatccc atcgatgtga 1450  
 agattttctga tgctattatg aacatgcagg ataatagtgt tcaagtgtct 1500  
 cagaagggtt tccagggatg tggaccccc aagccctcc cagctggacg 1550  
 aattttctcgt tccatctctg aaagtgcctt cagtgcctgc ttcagaccac 1600  
 atccccga ggaacgcca accacagcag ctggcactag tttggaccga 1650  
 ctgggttactg atgtcaagga gaaactgaaa caggccaaga aattctggtc 1700  
 ctcccttcg agcaacgttt gcaacgatga gaggatgggt gcaggaaacg 1750  
 gcaatgagga tgactgttg aatgggaaag gcaaaagcag gtacctgttt 1800  
 gcagtgcag gaaatggatt agccaaccag ggcaacaacc cagaggtcca 1850  
 ggttgacacc agcaaaccag acatactgat ccttcgtcaa atcatggctc 1900  
 ttcgagtgat gaccagcaag atgaagaatg catacaatgg gaacgacgtg 1950  
 gacttctttg atatcagtga tgaaagtagt ggagaaggaa gtggaagtgg 2000  
 ctgtgagtat cagcagtgcc cttcagagtt tgactacaat gccactgacc 2050  
 atgctgggaa gagtgccaat gagaaagccg acagtgctgg tgtccgtcct 2100  
 ggggcacagg cctacctct cactgtcttc tgcatcttgt tcttggttat 2150  
 gcagagagag tggagataat tctcaaactc tgagaaaaag tgttcatcaa 2200  
 aaagttaaaa ggcaccagtt atcacttttc taccatccta gtgactttgc 2250  
 tttttaaatg aatggacaac aatgtacagt ttttactatg tggccactgg 2300  
 ttttaagaagt gctgactttg ttttctcatt cagttttggg aggaaaaggg 2350  
 actgtgcatt gagttgggtc ctgctcccc aaacctggtt aaacgtgggt 2400  
 aacagtgtag gtacagaact atagttagtt gtgcatttgt gatthttatca 2450  
 ctctattatt tgthttgatg tttttttctc atttcgtttg tgggtttttt 2500  
 tttccaactg tgatctcgcc ttgtttctta caagcaaacc agggtcctt 2550  
 cttggcacgt aacatgtacg tatttctgaa atattaaata gctgtacaga 2600

agcagggtttt atttatcatg ttatctttatt aaaagaaaaa gcccaaaaag 2650

c 2651

<210> 24

<211> 556

<212> PRT

<213> Homo Sapien

<400> 24

Met	Ala	Arg	Phe	Gly	Leu	Pro	Ala	Leu	Leu	Cys	Thr	Leu	Ala	Val
1				5					10					15

Leu	Ser	Ala	Ala	Leu	Leu	Ala	Ala	Glu	Leu	Lys	Ser	Lys	Ser	Cys
				20					25					30

Ser	Glu	Val	Arg	Arg	Leu	Tyr	Val	Ser	Lys	Gly	Phe	Asn	Lys	Asn
				35					40					45

Asp	Ala	Pro	Leu	His	Glu	Ile	Asn	Gly	Asp	His	Leu	Lys	Ile	Cys
				50					55					60

Pro	Gln	Gly	Ser	Thr	Cys	Cys	Ser	Gln	Glu	Met	Glu	Glu	Lys	Tyr
				65					70					75

Ser	Leu	Gln	Ser	Lys	Asp	Asp	Phe	Lys	Ser	Val	Val	Ser	Glu	Gln
				80					85					90

Cys	Asn	His	Leu	Gln	Ala	Val	Phe	Ala	Ser	Arg	Tyr	Lys	Lys	Phe
				95					100					105

Asp	Glu	Phe	Phe	Lys	Glu	Leu	Leu	Glu	Asn	Ala	Glu	Lys	Ser	Leu
				110					115					120

Asn	Asp	Met	Phe	Val	Lys	Thr	Tyr	Gly	His	Leu	Tyr	Met	Gln	Asn
				125					130					135

Ser	Glu	Leu	Phe	Lys	Asp	Leu	Phe	Val	Glu	Leu	Lys	Arg	Tyr	Tyr
				140					145					150

Val	Val	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp
				155					160					165

Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Arg	Leu	Val	Asn	Ser	Gln	Tyr
				170					175					180

His	Phe	Thr	Asp	Glu	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Glu
				185					190					195

Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Leu	Gln
				200					205					210

Val	Thr	Arg	Ala	Phe	Val	Ala	Ala	Arg	Thr	Phe	Ala	Gln	Gly	Leu
				215					220					225

Ala Val Ala Gly Asp Val Val Ser Lys Val Ser Val Val Asn Pro

230	235	240
Thr Ala Gln Cys	Thr His Ala Leu Leu Lys Met Ile Tyr Cys Ser	
245	250	255
His Cys Arg Gly	Leu Val Thr Val Lys Pro Cys Tyr Asn Tyr Cys	
260	265	270
Ser Asn Ile Met	Arg Gly Cys Leu Ala Asn Gln Gly Asp Leu Asp	
275	280	285
Phe Glu Trp Asn	Asn Phe Ile Asp Ala Met Leu Met Val Ala Glu	
290	295	300
Arg Leu Glu Gly	Pro Phe Asn Ile Glu Ser Val Met Asp Pro Ile	
305	310	315
Asp Val Lys Ile	Ser Asp Ala Ile Met Asn Met Gln Asp Asn Ser	
320	325	330
Val Gln Val Ser	Gln Lys Val Phe Gln Gly Cys Gly Pro Pro Lys	
335	340	345
Pro Leu Pro Ala	Gly Arg Ile Ser Arg Ser Ile Ser Glu Ser Ala	
350	355	360
Phe Ser Ala Arg	Phe Arg Pro His His Pro Glu Glu Arg Pro Thr	
365	370	375
Thr Ala Ala Gly	Thr Ser Leu Asp Arg Leu Val Thr Asp Val Lys	
380	385	390
Glu Lys Leu Lys	Gln Ala Lys Lys Phe Trp Ser Ser Leu Pro Ser	
395	400	405
Asn Val Cys Asn	Asp Glu Arg Met Ala Ala Gly Asn Gly Asn Glu	
410	415	420
Asp Asp Cys Trp	Asn Gly Lys Gly Lys Ser Arg Tyr Leu Phe Ala	
425	430	435
Val Thr Gly Asn	Gly Leu Ala Asn Gln Gly Asn Asn Pro Glu Val	
440	445	450
Gln Val Asp Thr	Ser Lys Pro Asp Ile Leu Ile Leu Arg Gln Ile	
455	460	465
Met Ala Leu Arg	Val Met Thr Ser Lys Met Lys Asn Ala Tyr Asn	
470	475	480
Gly Asn Asp Val	Asp Phe Phe Asp Ile Ser Asp Glu Ser Ser Gly	
485	490	495
Glu Gly Ser Gly	Ser Gly Cys Glu Tyr Gln Gln Cys Pro Ser Glu	
500	505	510
Phe Asp Tyr Asn	Ala Thr Asp His Ala Gly Lys Ser Ala Asn Glu	



<400> 26

Met Lys Val Leu Ile Ser Ser Leu Leu Leu Leu Leu Pro Leu Met  
1 5 10 15

Leu Met Ser Met Val Ser Ser Ser Leu Asn Pro Gly Val Ala Arg  
20 25 30

Gly His Arg Asp Arg Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu  
35 40 45

Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro  
50 55 60

Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys Gln Cys  
65 70 75

Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His Gln  
80 85 90

Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln  
95 100 105

Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu  
110 115

<210> 27

<211> 1371

<212> DNA

<213> Homo Sapien

<400> 27

ggacgccagc gctgcagag gctgagcagg gaaaaagcca gtgccccagc 50

ggaagcacag ctgagagctg gtctgccatg gacatcctgg tcccactcct 100

gcagctgctg gtgctgcttc ttaccctgcc cctgcacctc atggctctgc 150

tgggctgctg gcagcccctg tgcaaaagct acttccccta cctgatggcc 200

gtgctgactc ccaagagcaa ccgcaagatg gagagcaaga aacgggagct 250

cttcagccag ataaaggggc ttacaggagc ctccgggaaa gtggccctac 300

tggagctggg ctgcggaacc ggagccaact ttcagttcta cccaccgggc 350

tgcagggtca cctgcctaga cccaaatccc cactttgaga agttcctgac 400

aaagagcatg gctgagaaca ggcacctcca atatgagcgg tttgtggtgg 450

ctcctggaga ggacatgaga cagctggctg atggctccat ggatgtggtg 500

gtctgcactc tgggtgctgtg ctctgtgcag agcccaagga aggtcctgca 550

ggaggtccgg agagtactga gaccgggagg tgtgctcttt ttctgggagc 600

atgtggcaga accatatgga agctgggcct tcatgtggca gcaagttttc 650

gagcccacct ggaaacacat tggggatggc tgctgcctca ccagagagac 700

ctggaaggat cttgagaacg cccagttctc cgaaatccaa atggaacgac 750  
 agccccctcc cttgaagtgg ctacctgttg ggccccacat catgggaaag 800  
 gctgtcaaac aatctttccc aagctccaag gcaatcattt gctccttccc 850  
 cagcctccaa ttagaacaag ccacccacca gcctatctat cttccactga 900  
 gagggaccta gcagaatgag agaagacatt catgtaccac ctactagtcc 950  
 ctctctcccc aacctctgcc agggcaatct ctaacttcaa tcccgccttc 1000  
 gacagtgaag aagctctact tctacgctga cccagggagg aaacactagg 1050  
 accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100  
 gcctcccaat gttgtccctt tccttcgttc ccatggtaaa gtcctctctg 1150  
 ctttctctct gaggctacac ccatgctgtc ctaggaactg gtcacaaaag 1200  
 tcatggtgcc tgcattccctg ccaagccccc ctgacctctc ctccccacta 1250  
 ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300  
 atgccagagc aagactcaaa gaggcagagg ttttgttctc aaatattttt 1350  
 taataaatag acgaaaccac g 1371

<210> 28

<211> 277

<212> PRT

<213> Homo Sapien

<400> 28

Met	Asp	Ile	Leu	Val	Pro	Leu	Leu	Gln	Leu	Leu	Val	Leu	Leu	Leu
1				5				10						15

Thr	Leu	Pro	Leu	His	Leu	Met	Ala	Leu	Leu	Gly	Cys	Trp	Gln	Pro
				20						25				30

Leu	Cys	Lys	Ser	Tyr	Phe	Pro	Tyr	Leu	Met	Ala	Val	Leu	Thr	Pro
				35						40				45

Lys	Ser	Asn	Arg	Lys	Met	Glu	Ser	Lys	Lys	Arg	Glu	Leu	Phe	Ser
				50						55				60

Gln	Ile	Lys	Gly	Leu	Thr	Gly	Ala	Ser	Gly	Lys	Val	Ala	Leu	Leu
				65						70				75

Glu	Leu	Gly	Cys	Gly	Thr	Gly	Ala	Asn	Phe	Gln	Phe	Tyr	Pro	Pro
				80						85				90

Gly	Cys	Arg	Val	Thr	Cys	Leu	Asp	Pro	Asn	Pro	His	Phe	Glu	Lys
				95						100				105

Phe	Leu	Thr	Lys	Ser	Met	Ala	Glu	Asn	Arg	His	Leu	Gln	Tyr	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

110	115	120
Arg Phe Val Val Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp		
125	130	135
Gly Ser Met Asp Val Val Val Cys Thr Leu Val Leu Cys Ser Val		
140	145	150
Gln Ser Pro Arg Lys Val Leu Gln Glu Val Arg Arg Val Leu Arg		
155	160	165
Pro Gly Gly Val Leu Phe Phe Trp Glu His Val Ala Glu Pro Tyr		
170	175	180
Gly Ser Trp Ala Phe Met Trp Gln Gln Val Phe Glu Pro Thr Trp		
185	190	195
Lys His Ile Gly Asp Gly Cys Cys Leu Thr Arg Glu Thr Trp Lys		
200	205	210
Asp Leu Glu Asn Ala Gln Phe Ser Glu Ile Gln Met Glu Arg Gln		
215	220	225
Pro Pro Pro Leu Lys Trp Leu Pro Val Gly Pro His Ile Met Gly		
230	235	240
Lys Ala Val Lys Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys		
245	250	255
Ser Phe Pro Ser Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile		
260	265	270
Tyr Leu Pro Leu Arg Gly Thr		
275		

<210> 29  
 <211> 494  
 <212> DNA  
 <213> Homo Sapien

<400> 29  
 caatgtttgc ctatccacct cccccaagcc cctttaccta tgctgctgct 50  
 aacgctgctg ctgctgctgc tgctgcttaa aggctcatgc ttggagtggg 100  
 gactggtcgg tgcccagaaa gtctcttctg ccaactgacgc ccccatcagg 150  
 gattgggcct tctttccccc ttcctttctg tgtctcctgc ctcacgggcc 200  
 tgccatgacc tgcagccaag ccagccccg tggggaaggg gagaaagtgg 250  
 gggatggcta agaaagctgg gagatagggg acagaagagg gtagtgggtg 300  
 ggctaggggg gctgccttat ttaaagtggg tgtttatgat tcttatacta 350  
 atttatacaa agatattaag gccctgttca ttaagaaatt gttcccttcc 400

cctgtgttca atgtttgtaa agattgttct gtgtaaatat gtctttataa 450

taaacagtta aaagctgaaa aaaaaaaaaa aaaaaaaaaa aaaa 494

<210> 30

<211> 73

<212> PRT

<213> Homo Sapien

<400> 30

Met	Leu	Leu	Leu	Thr	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Lys	Gly
1				5				10				15	

Ser	Cys	Leu	Glu	Trp	Gly	Leu	Val	Gly	Ala	Gln	Lys	Val	Ser	Ser
			20					25					30	

Ala	Thr	Asp	Ala	Pro	Ile	Arg	Asp	Trp	Ala	Phe	Phe	Pro	Pro	Ser
			35					40						45

Phe	Leu	Cys	Leu	Leu	Pro	His	Arg	Pro	Ala	Met	Thr	Cys	Ser	Gln
			50					55						60

Ala	Gln	Pro	Arg	Gly	Glu	Gly	Glu	Lys	Val	Gly	Asp	Gly		
			65					70						

<210> 31

<211> 1660

<212> DNA

<213> Homo Sapien

<400> 31

gtttgaattc cttcaactat acccacagtc caaaagcaga ctcaactgtgt 50

cccaggctac cagttcctcc aagcaagtca tttcccttat ttaaccgatg 100

tgtccctcaa acacctgagt gctactccct atttgcatct gttttgataa 150

atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200

gatacaatcc ttggcctgtg tatcctcgca ttagccttgt ctttggccat 250

gatgtttacc ttcagattca tcaccaccct tctgggttcac attttcattt 300

cattgggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350

tattatgact ataccaacga cctcagcata gaattggaca cagaaaggga 400

aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcatcacgg 450

cagtgtgtct cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500

gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttctt 550

gctgttccag ccaactgtga catttgccat cctcattttc ttctgggtcc 600

tctgggtggc tgtgtgtgtg agcctgggaa ctgcaggagc tgcccagggt 650

atggaaggcg gccaaagtga atataagccc ctttcgggca ttcggtacat 700



gtggtcgtac catttaattg gcctcatctg gactagtga ttcattccttg 750  
 cgtgccagca aatgactata gctggggcag tggttacttg ttatttcaac 800  
 agaagtaaaa atgatcctcc tgatcatccc atcctttcgt ctctctccat 850  
 tctcttcttc taccatcaag gaaccgttgt gaaagggcca tttttaatct 900  
 ctgtggtgag gattccgaga atcattgtca tgtacatgca aaacgcactg 950  
 aaagaacagc agcatggtgc attgtccagg tacctgttcc gatgctgcta 1000  
 ctgctgtttc tgggtgtctg acaaatacct gctccatctc aaccagaatg 1050  
 catatactac aactgctatt aatgggacag atttctgtac atcagcaaaa 1100  
 gatgcattca aaatcttgtc caagaactca agtcacttta catctattaa 1150  
 ctgctttgga gacttcataa tttttctagg aaagggtgta gtgggtgtgtt 1200  
 tcaactgtttt tggaggactc atggccttta actacaatcg ggcattccag 1250  
 gtgtgggcag tccctctggt attggtagct ttttttgctt acttagtagc 1300  
 ccatagtttt ttatctgtgt ttgaaactgt gctggatgca cttttcctgt 1350  
 gttttgctgt tgatctggaa acaaatgatg gatcgtcaga aaagccctac 1400  
 tttatggatc aagaatttct gagtttcgta aaaaggagca acaaattaaa 1450  
 caatgcaagg gcacagcagg acaagcactc attaaggaat gaggagggaa 1500  
 cagaactcca ggccattgtg agatagatac ccatttaggt atctgtacct 1550  
 ggaaaacatt tccttctaag agccatttac agaatagaag atgagaccac 1600  
 tagagaaaag ttagtgaatt tttttttaa agacctata aacctattc 1650  
 ttctcaaaa 1660

<210> 32  
 <211> 445  
 <212> PRT  
 <213> Homo Sapien

<400> 32  
 Met Ser Gly Arg Asp Thr Ile Leu Gly Leu Cys Ile Leu Ala Leu  
 1 5 10 15  
 Ala Leu Ser Leu Ala Met Met Phe Thr Phe Arg Phe Ile Thr Thr  
 20 25 30  
 Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu  
 35 40 45  
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn  
 50 55 60

Asp	Leu	Ser	Ile	Glu	Leu	Asp	Thr	Glu	Arg	Glu	Asn	Met	Lys	Cys	
				65					70					75	
Val	Leu	Gly	Phe	Ala	Ile	Val	Ser	Thr	Gly	Ile	Thr	Ala	Val	Leu	
				80					85					90	
Leu	Val	Leu	Ile	Phe	Val	Leu	Arg	Lys	Arg	Ile	Lys	Leu	Thr	Val	
				95					100					105	
Glu	Leu	Phe	Gln	Ile	Thr	Asn	Lys	Ala	Ile	Ser	Ser	Ala	Pro	Phe	
				110					115					120	
Leu	Leu	Phe	Gln	Pro	Leu	Trp	Thr	Phe	Ala	Ile	Leu	Ile	Phe	Phe	
				125					130					135	
Trp	Val	Leu	Trp	Val	Ala	Val	Leu	Leu	Ser	Leu	Gly	Thr	Ala	Gly	
				140					145					150	
Ala	Ala	Gln	Val	Met	Glu	Gly	Gly	Gln	Val	Glu	Tyr	Lys	Pro	Leu	
				155					160					165	
Ser	Gly	Ile	Arg	Tyr	Met	Trp	Ser	Tyr	His	Leu	Ile	Gly	Leu	Ile	
				170					175					180	
Trp	Thr	Ser	Glu	Phe	Ile	Leu	Ala	Cys	Gln	Gln	Met	Thr	Ile	Ala	
				185					190					195	
Gly	Ala	Val	Val	Thr	Cys	Tyr	Phe	Asn	Arg	Ser	Lys	Asn	Asp	Pro	
				200					205					210	
Pro	Asp	His	Pro	Ile	Leu	Ser	Ser	Leu	Ser	Ile	Leu	Phe	Phe	Tyr	
				215					220					225	
His	Gln	Gly	Thr	Val	Val	Lys	Gly	Ser	Phe	Leu	Ile	Ser	Val	Val	
				230					235					240	
Arg	Ile	Pro	Arg	Ile	Ile	Val	Met	Tyr	Met	Gln	Asn	Ala	Leu	Lys	
				245					250					255	
Glu	Gln	Gln	His	Gly	Ala	Leu	Ser	Arg	Tyr	Leu	Phe	Arg	Cys	Cys	
				260					265					270	
Tyr	Cys	Cys	Phe	Trp	Cys	Leu	Asp	Lys	Tyr	Leu	Leu	His	Leu	Asn	
				275					280					285	
Gln	Asn	Ala	Tyr	Thr	Thr	Thr	Ala	Ile	Asn	Gly	Thr	Asp	Phe	Cys	
				290					295					300	
Thr	Ser	Ala	Lys	Asp	Ala	Phe	Lys	Ile	Leu	Ser	Lys	Asn	Ser	Ser	
				305					310					315	
His	Phe	Thr	Ser	Ile	Asn	Cys	Phe	Gly	Asp	Phe	Ile	Ile	Phe	Leu	
				320					325					330	
Gly	Lys	Val	Leu	Val	Val	Cys	Phe	Thr	Val	Phe	Gly	Gly	Leu	Met	
				335					340					345	

Ala	Phe	Asn	Tyr	Asn	Arg	Ala	Phe	Gln	Val	Trp	Ala	Val	Pro	Leu	
				350					355					360	
Leu	Leu	Val	Ala	Phe	Phe	Ala	Tyr	Leu	Val	Ala	His	Ser	Phe	Leu	
				365					370					375	
Ser	Val	Phe	Glu	Thr	Val	Leu	Asp	Ala	Leu	Phe	Leu	Cys	Phe	Ala	
				380					385					390	
Val	Asp	Leu	Glu	Thr	Asn	Asp	Gly	Ser	Ser	Glu	Lys	Pro	Tyr	Phe	
				395					400					405	
Met	Asp	Gln	Glu	Phe	Leu	Ser	Phe	Val	Lys	Arg	Ser	Asn	Lys	Leu	
				410					415					420	
Asn	Asn	Ala	Arg	Ala	Gln	Gln	Asp	Lys	His	Ser	Leu	Arg	Asn	Glu	
				425					430					435	
Glu	Gly	Thr	Glu	Leu	Gln	Ala	Ile	Val	Arg						
				440					445						

<210> 33  
 <211> 2773  
 <212> DNA  
 <213> Homo Sapien

<400> 33  
 gttcgattag ctcctctgag aagaagagaa aagggttcttg gacctctccc 50  
 tgtttcttcc ttagaataat ttgtatggga tttgtgatgc aggaaagcct 100  
 aagggaataa gaataattcat tctgtgtggt gaaaattttt tgaaaaaaaa 150  
 attgccttct tcaaacaagg gtgtcattct gatatttatg aggactgttg 200  
 ttctcactat gaaggcatct gttattgaaa tgttccttgt tttgctggtg 250  
 actggagtac attcaaaca agaaacggca aagaagatta aaaggcccaa 300  
 gttcactgtg cctcagatca actgcgatgt caaagccgga aagatcatcg 350  
 atcctgagtt cattgtgaaa tgtccagcag gatgccaaga ccccaaatac 400  
 catgtttatg gcaactgacgt gtatgcatcc tactccagtg tgtgtggcgc 450  
 tgccgtacac agtgggtgtgc ttgataatc aggagggaaa atacttggtc 500  
 ggaagggtgc tggacagtct gggtacaaag ggagttatc caacgggtgc 550  
 caatcggtat cctaccacg atggagagaa tcctttatcg tcttagaaag 600  
 taaacccaaa aagggtgtaa cctaccatc agctcttaca tactcatcat 650  
 cgaaaagtcc agctgcccac gcaggtgaga ccacaaaagc ctatcagagg 700  
 ccacctatc cagggacaac tgcacagccg gtcactctga tgcagcttct 750  
 ggctgtcact gtagctgtgg ccacccccac caccttgcca aggccatccc 800

cttctgctgc ttctaccacc agcatcccca gaccacaatc agtggggccac 850  
 aggagccagg agatggatct ctggtccact gccacctaca caagcagcca 900  
 aaacaggccc agagctgata caggtatcca aaggcaagat ccttcaggag 950  
 ctgccttcca gaaacctgtt ggagcggatg tcagcctggg acttggtcca 1000  
 aaagaagaat tgagcacaca gtctttggag ccagtatccc tgggagatcc 1050  
 aaactgcaaa attgacttgt cgtttttaat tgatgggagc accagcattg 1100  
 gcaaacggcg attccgaatc cagaagcagc tcctggctga tgttgcccaa 1150  
 gctcttgaca ttggccctgc cgggtccactg atgggtgttg tccagtatgg 1200  
 agacaaccct gctactcact ttaacctcaa gacacacacg aattctcgag 1250  
 atctgaagac agccatagag aaaattactc agagaggagg acttttcta 1300  
 gtaggtcggg ccatctcctt tgtgaccaag aacttctttt ccaaagccaa 1350  
 tggaacaga agcggggctc ccaatgtggt ggtggtgatg gtggatggct 1400  
 ggcccacgga caaagtggag gaggcttcaa gacttgcgag agagtcagga 1450  
 atcaacattt tcttcacac cattgaaggt gctgctgaaa atgagaagca 1500  
 gtatgtggtg gagcccaact ttgcaaaca ggcgtgtgc agaacaacg 1550  
 gcttctactc gctccacgtg cagagctggt ttggcctcca caagaccctg 1600  
 cagcctctgg tgaagcgggt ctgcgacact gaccgcctgg cctgcagcaa 1650  
 gacctgcttg aactcggctg acattggctt cgtcatcgac ggctccagca 1700  
 gtgtggggac gggcaacttc cgcaccgtcc tccagtttgt gaccaacctc 1750  
 accaaagagt ttgagatttc cgacacggac acgcgcatcg gggcgtgca 1800  
 gtacacctac gaacagcggc tggagtttgg gttcgacaag tacagcagca 1850  
 agcctgacat cctcaacgcc atcaagaggg tgggctactg gagtgggtggc 1900  
 accagcacgg gggctgcat caacttcgcc ctggagcagc tcttcaagaa 1950  
 gtccaagccc aacaagagga agttaatgat cctcatcacc gacgggaggt 2000  
 cctacgacga cgtccgata ccagccatgg ctgccatct gaaggagtg 2050  
 atcacctatg cgataggcgt tgcctgggct gcccaagagg agctagaagt 2100  
 cattgccact caccgcgcca gagaccactc cttctttgtg gacgagtttg 2150  
 acaacctcca tcagtatgtc ccaggatca tccagaacat ttgtacagag 2200

ttcaactcac agcctcggaa ctgaattcag agcaggcaga gcaccagcaa 2250  
 gtgctgcttt actaactgac gtgttgacc accccaccgc ttaatggggc 2300  
 acgcacggtg catcaagtct tgggcagggc atggagaaac aaatgtcttg 2350  
 ttattattct ttgccatcat gctttttcat attccaaaac ttggagttac 2400  
 aaagatgata acaaacgtat agaatgagcc aaaaggctac atcatgttga 2450  
 ggggtgctgga gattttacat ttgacaatt gttttcaaaa taaatgttcg 2500  
 gaatacagtg cagcccttac gacaggctta cgtagagctt ttgtgagatt 2550  
 ttttaagttgt tattttctgat ttgaactctg taaccctcag caagtttcat 2600  
 ttttgtcatg acaatgtagg aattgctgaa ttaaattgtt agaaggatga 2650  
 aaaataaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2700  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2750  
 aaaaaaaaaa aaaaaaaaaa aag 2773

<210> 34  
 <211> 678  
 <212> PRT  
 <213> Homo Sapien

<400> 34  
 Met Arg Thr Val Val Leu Thr Met Lys Ala Ser Val Ile Glu Met  
 1 5 10 15  
 Phe Leu Val Leu Leu Val Thr Gly Val His Ser Asn Lys Glu Thr  
 20 25 30  
 Ala Lys Lys Ile Lys Arg Pro Lys Phe Thr Val Pro Gln Ile Asn  
 35 40 45  
 Cys Asp Val Lys Ala Gly Lys Ile Ile Asp Pro Glu Phe Ile Val  
 50 55 60  
 Lys Cys Pro Ala Gly Cys Gln Asp Pro Lys Tyr His Val Tyr Gly  
 65 70 75  
 Thr Asp Val Tyr Ala Ser Tyr Ser Ser Val Cys Gly Ala Ala Val  
 80 85 90  
 His Ser Gly Val Leu Asp Asn Ser Gly Gly Lys Ile Leu Val Arg  
 95 100 105  
 Lys Val Ala Gly Gln Ser Gly Tyr Lys Gly Ser Tyr Ser Asn Gly  
 110 115 120  
 Val Gln Ser Leu Ser Leu Pro Arg Trp Arg Glu Ser Phe Ile Val  
 125 130 135

Leu	Glu	Ser	Lys	Pro	Lys	Lys	Gly	Val	Thr	Tyr	Pro	Ser	Ala	Leu	140	145	150
Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr	155	160	165
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln	170	175	180
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala	185	190	195
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr	200	205	210
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu	215	220	225
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg	230	235	240
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala	245	250	255
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val	260	265	270
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu	275	280	285
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly	290	295	300
Ser	Thr	Ser	Ile	Gly	Lys	Arg	Arg	Phe	Arg	Ile	Gln	Lys	Gln	Leu	305	310	315
Leu	Ala	Asp	Val	Ala	Gln	Ala	Leu	Asp	Ile	Gly	Pro	Ala	Gly	Pro	320	325	330
Leu	Met	Gly	Val	Val	Gln	Tyr	Gly	Asp	Asn	Pro	Ala	Thr	His	Phe	335	340	345
Asn	Leu	Lys	Thr	His	Thr	Asn	Ser	Arg	Asp	Leu	Lys	Thr	Ala	Ile	350	355	360
Glú	Lys	Ile	Thr	Gln	Arg	Gly	Gly	Leu	Ser	Asn	Val	Gly	Arg	Ala	365	370	375
Ile	Ser	Phe	Val	Thr	Lys	Asn	Phe	Phe	Ser	Lys	Ala	Asn	Gly	Asn	380	385	390
Arg	Ser	Gly	Ala	Pro	Asn	Val	Val	Val	Val	Met	Val	Asp	Gly	Trp	395	400	405
Pro	Thr	Asp	Lys	Val	Glu	Glu	Ala	Ser	Arg	Leu	Ala	Arg	Glu	Ser	410	415	420

Gly Ile Asn Ile Phe Phe Ile Thr Ile Glu Gly Ala Ala Glu Asn	425	430	435
Glu Lys Gln Tyr Val Val Glu Pro Asn Phe Ala Asn Lys Ala Val	440	445	450
Cys Arg Thr Asn Gly Phe Tyr Ser Leu His Val Gln Ser Trp Phe	455	460	465
Gly Leu His Lys Thr Leu Gln Pro Leu Val Lys Arg Val Cys Asp	470	475	480
Thr Asp Arg Leu Ala Cys Ser Lys Thr Cys Leu Asn Ser Ala Asp	485	490	495
Ile Gly Phe Val Ile Asp Gly Ser Ser Ser Val Gly Thr Gly Asn	500	505	510
Phe Arg Thr Val Leu Gln Phe Val Thr Asn Leu Thr Lys Glu Phe	515	520	525
Glu Ile Ser Asp Thr Asp Thr Arg Ile Gly Ala Val Gln Tyr Thr	530	535	540
Tyr Glu Gln Arg Leu Glu Phe Gly Phe Asp Lys Tyr Ser Ser Lys	545	550	555
Pro Asp Ile Leu Asn Ala Ile Lys Arg Val Gly Tyr Trp Ser Gly	560	565	570
Gly Thr Ser Thr Gly Ala Ala Ile Asn Phe Ala Leu Glu Gln Leu	575	580	585
Phe Lys Lys Ser Lys Pro Asn Lys Arg Lys Leu Met Ile Leu Ile	590	595	600
Thr Asp Gly Arg Ser Tyr Asp Asp Val Arg Ile Pro Ala Met Ala	605	610	615
Ala His Leu Lys Gly Val Ile Thr Tyr Ala Ile Gly Val Ala Trp	620	625	630
Ala Ala Gln Glu Glu Leu Glu Val Ile Ala Thr His Pro Ala Arg	635	640	645
Asp His Ser Phe Phe Val Asp Glu Phe Asp Asn Leu His Gln Tyr	650	655	660
Val Pro Arg Ile Ile Gln Asn Ile Cys Thr Glu Phe Asn Ser Gln	665	670	675
Pro Arg Asn			

<210> 35  
 <211> 2095  
 <212> DNA

<213> Homo Sapien

<400> 35

```
ccgagcacag gagattgcct gcgttttagga ggtggctgcg ttgtgggaaa 50
agctatcaag gaagaaattg ccaaaccatg tctttttttc tgttttcaga 100
gtagttcaca acagatctga gtgttttaat taagcatgga atacagaaaa 150
caacaaaaaa cttaagcttt aatttcatct ggaattccac agttttctta 200
gctccctgga cccggttgac ctgttggtc ttcccgtgg ctgctctatc 250
acgtggtgct ctccgactac tcaccccgag tgtaaagaac cttcggctcg 300
cgtgcttctg agctgctgtg gatggcctcg gctctctgga ctgtccttcc 350
gagtaggatg tcactgagat ccctcaaatg gagcctcctg ctgctgtcac 400
tcctgagttt ctttgtgatg tggtaacctca gccttcccca ctacaatgtg 450
atagaacgcg tgaactggat gtacttctat gagtatgagc cgatttacag 500
acaagacttt cacttcacac ttcgagagca ttcaaactgc tctcatcaaa 550
atccatttct ggtcattctg gtgacctccc acccttcaga tgtgaaagcc 600
aggcaggcca ttagagttac ttggggtgaa aaaaagtctt ggtggggata 650
tgaggttctt acatttttct tattaggcca agaggctgaa aaggaagaca 700
aaatgttggc attgtcctta gaggatgaac accttcttta tggtgacata 750
atccgacaag atttttttaga cacatataat aacctgacct tgaaaaccat 800
tatggcattc aggtgggtaa ctgagttttg cccaatgcc aagtacgtaa 850
tgaagacaga cactgatgtt ttcataata ctggcaattt agtgaagtat 900
cttttaaacc taaaccactc agagaagttt ttcacagggt atcctctaata 950
tgataattat tcctatagag gattttacca aaaaacccat atttcttacc 1000
aggagtatcc tttcaagggt ttcctccat actgcagtgg gttgggttat 1050
ataatgtcca gagatttggt gccaaaggatc tatgaaatga tgggtcacgt 1100
aaaacccatc aagtttgaag atgtttatgt cgggatctgt ttgaatttat 1150
taaaagtga cttcatatt ccagaagaca caaatctttt ctttctatat 1200
agaatccatt tggatgtctg tcaactgaga cgtgtgattg cagcccatgg 1250
cttttcttcc aaggagatca tcactttttg gcaggatcatg ctaaggaaca 1300
ccacatgcc ttattaactt cacattctac aaaaagccta gaaggacagg 1350
```



ataccttgtg gaaagtgtta aataaagtag gtactgtgga aaattcatgg 1400  
 ggaggtcagt gtgctggctt acactgaact gaaactcatg aaaaaccag 1450  
 actggagact ggaggggttac acttgtgatt tattagtcag gcccttcaaa 1500  
 gatgatatgt ggaggaatta aatataaagg aattggaggt ttttgctaaa 1550  
 gaaattaata ggaccaaaca atttgacat gtcattctgt agactagaat 1600  
 ttcttaaaag ggtgttactg agttataagc tcactaggct gtaaaaacaa 1650  
 aacaatgtag agttttatatt attgaacaat gtagtcactt gaaggttttg 1700  
 tgtatatctt atgtggatta ccaatttaaa aatatatgta gttctgtgtc 1750  
 aaaaaacttc ttactgaag ttatactgaa caaaatttta cctgtttttg 1800  
 gtcatttata aagtacttca agatgttgca gtatttcaca gttattatta 1850  
 tttaaaatta cttcaacttt gtgtttttaa atgttttgac gatttcaata 1900  
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950  
 tacttaactg atcagtttat tattgataca tcactccatt aatgtaaagt 2000  
 cataggtcat tattgcatat cagtaatctc ttggactttg ttaaataattt 2050  
 tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

<210> 36

<211> 331

<212> PRT

<213> Homo Sapien

<400> 36

Met	Ala	Ser	Ala	Leu	Trp	Thr	Val	Leu	Pro	Ser	Arg	Met	Ser	Leu
1				5					10					15
Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe
			20						25					30
Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu
			35						40					45
Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg
			50						55					60
Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His
			65						70					75
Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp
			80						85					90
Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys
			95						100					105

Ser Trp Trp Gly Tyr Glu Val Leu Thr Phe Phe Leu Leu Gly Gln	110	115	120
Glu Ala Glu Lys Glu Asp Lys Met Leu Ala Leu Ser Leu Glu Asp	125	130	135
Glu His Leu Leu Tyr Gly Asp Ile Ile Arg Gln Asp Phe Leu Asp	140	145	150
Thr Tyr Asn Asn Leu Thr Leu Lys Thr Ile Met Ala Phe Arg Trp	155	160	165
Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp	170	175	180
Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu	185	190	195
Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile	200	205	210
Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser	215	220	225
Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Pro Tyr Cys Ser Gly	230	235	240
Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu	245	250	255
Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val	260	265	270
Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu	275	280	285
Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys	290	295	300
Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu	305	310	315
Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His	320	325	330

Tyr

<210> 37

<211> 2846

<212> DNA

<213> Homo Sapien

<400> 37

cgctcgggca ccagccgcgg caaggatgga gctggggtgc tggacgcagt 50

tggggctcac ttttcttcag ctcttctca tctcgtcctt gccaaagagag 100

tacacagtca ttaatgaagc ctgccctgga gcagagtgga atatcatgtg 150  
 tcgggagtg c tgtgaatatg atcagattga gtgcgtctgc cccggaaaga 200  
 gggaagtcgt ggggtataacc atcccttgct gcaggaatga ggagaatgag 250  
 tgtgactcct gcctgatcca cccaggttgt accatctttg aaaactgcaa 300  
 gagctgccga aatggctcat gggggggtac cttggatgac ttctatgtga 350  
 aggggttcta ctgtgcagag tgccgagcag gctggtacgg aggagactgc 400  
 atgcgatgtg gccaggttct gcgagcccca aagggtcaga ttttggttga 450  
 aagctatccc ctaaagtctc actgtgaatg gaccattcat gctaaacctg 500  
 ggtttgtcat ccaactaaga tttgtcatgt tgagtctgga gtttgactac 550  
 atgtgccagt atgactatgt tgaggttcgt gatggagaca accgcgatgg 600  
 ccagatcadc aagcgtgtct gtggcaacga gcggccagct cctatccaga 650  
 gcataggatc ctactccac gtccctcttc actccgatgg ctccaagaat 700  
 tttgacggtt tccatgccat ttatgaggag atcacagcat gctcctcadc 750  
 cccttgtttc catgacggca cgtgcgtcct tgacaaggct ggatcttaca 800  
 agtgtgcctg cttggcaggc tatactgggc agcgtgtga aaatctcctt 850  
 gaagaaagaa actgctcaga ccctgggggc ccagtcaatg ggtaccagaa 900  
 aataacaggg ggccctgggc ttatcaacgg acgccatgct aaaattggca 950  
 ccgtggtgtc tttcttttgt aacaactcct atgttcttag tggcaatgag 1000  
 aaaagaactt gccagcagaa tggagagtgg tcagggaac agcccatctg 1050  
 cataaaagcc tgccgagaac caaagatttc agacctggtg agaaggagag 1100  
 ttcttccgat gcaggttcag tcaagggaga caccattaca ccagctatac 1150  
 tcagcggcct tcagcaagca gaaactgcag agtgccccta ccaagaagcc 1200  
 agcccttccc tttggagatc tgcccatggg ataccaacat ctgcataccc 1250  
 agctccagta tgagtgcadc tcacccttct accgccgcct gggcagcagc 1300  
 aggaggacat gtctgaggac tgggaagtgg agtgggcggg caccatcctg 1350  
 catccctadc tgcgggaaaa ttgagaacat cactgctcca aagaccaag 1400  
 ggttgcgctg gccgtggcag gcagccatct acaggaggac cagcggggtg 1450  
 catgacggca gcctacacaa gggagcgtgg ttctagtct gcagcgggtc 1500  
 cctggtgaat gagcgactg tgggtggtggc tgcccactgt gttactgacc 1550

tggggaaggt caccatgatc aagacagcag acctgaaagt tgttttgggg 1600  
 aaattctacc gggatgatga ccgggatgag aagaccatcc agagcctaca 1650  
 gatttctgct atcattctgc atcccaacta tgaccccatc ctgcttgatg 1700  
 ctgacatcgc catcctgaag ctcttagaca aggcccgat cagcaccoga 1750  
 gtccagccca tctgcctcgc tgccagtcgg gatctcagca cttccttcca 1800  
 ggagtccac atcactgtgg ctggctggaa tgtcctggca gacgtgagga 1850  
 gccctggctt caagaacgac aactgcgct ctggggtggt cagtgtggtg 1900  
 gactcgctgc tgtgtgagga gcagcatgag gaccatggca tcccagtga 1950  
 tgtcactgat aacatgttct gtgccagctg ggaaccact gcccttctg 2000  
 atatctgcac tgcagagaca ggaggcatcg cggtgtgtc cttcccgga 2050  
 cgagcatctc ctgagccacg ctggcatctg atgggactgg tcagctggag 2100  
 ctatgataaa acatgcagcc acaggctctc cactgccttc accaaggtgc 2150  
 tgccttttaa agactggatt gaaagaaata tgaaatgaac catgctcatg 2200  
 cactccttga gaagtgttc tgtatatccg tctgtacgtg tgtcattgcg 2250  
 tgaagcagtg tgggcctgaa gtgtgatttg gcctgtgaac ttggctgtgc 2300  
 cagggttct gacttcaggg aaaaaactca gtgaagggtg agtagacctc 2350  
 cattgctggt aggctgatgc cgcgtccact actaggacag ccaattggaa 2400  
 gatgccaggg cttgcaagaa gtaagtttct tcaaagaaga ccatatacaa 2450  
 aacctctcca ctccactgac ctggtggtct tcccaactt tcagttatac 2500  
 gaatgccatc agcttgacca gggaagatct gggcttcatg aggcccttt 2550  
 tgaggctctc aagttctaga gagctgcctg tgggacagcc cagggcagca 2600  
 gagctgggat gtggtgcatg ctttgtgta catggccaca gtacagtctg 2650  
 gtccttttcc ttcccatct cttgtacaca ttttaataaa ataagggttg 2700  
 gcttctgaac tacaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2750  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2800  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2846

<210> 38  
 <211> 720  
 <212> PRT  
 <213> Homo Sapien

<400> 38

Met	Glu	Leu	Gly	Cys	Trp	Thr	Gln	Leu	Gly	Leu	Thr	Phe	Leu	Gln	1	5	10	15
Leu	Leu	Leu	Ile	Ser	Ser	Leu	Pro	Arg	Glu	Tyr	Thr	Val	Ile	Asn	20	25	30	
Glu	Ala	Cys	Pro	Gly	Ala	Glu	Trp	Asn	Ile	Met	Cys	Arg	Glu	Cys	35	40	45	
Cys	Glu	Tyr	Asp	Gln	Ile	Glu	Cys	Val	Cys	Pro	Gly	Lys	Arg	Glu	50	55	60	
Val	Val	Gly	Tyr	Thr	Ile	Pro	Cys	Cys	Arg	Asn	Glu	Glu	Asn	Glu	65	70	75	
Cys	Asp	Ser	Cys	Leu	Ile	His	Pro	Gly	Cys	Thr	Ile	Phe	Glu	Asn	80	85	90	
Cys	Lys	Ser	Cys	Arg	Asn	Gly	Ser	Trp	Gly	Gly	Thr	Leu	Asp	Asp	95	100	105	
Phe	Tyr	Val	Lys	Gly	Phe	Tyr	Cys	Ala	Glu	Cys	Arg	Ala	Gly	Trp	110	115	120	
Tyr	Gly	Gly	Asp	Cys	Met	Arg	Cys	Gly	Gln	Val	Leu	Arg	Ala	Pro	125	130	135	
Lys	Gly	Gln	Ile	Leu	Leu	Glu	Ser	Tyr	Pro	Leu	Asn	Ala	His	Cys	140	145	150	
Glu	Trp	Thr	Ile	His	Ala	Lys	Pro	Gly	Phe	Val	Ile	Gln	Leu	Arg	155	160	165	
Phe	Val	Met	Leu	Ser	Leu	Glu	Phe	Asp	Tyr	Met	Cys	Gln	Tyr	Asp	170	175	180	
Tyr	Val	Glu	Val	Arg	Asp	Gly	Asp	Asn	Arg	Asp	Gly	Gln	Ile	Ile	185	190	195	
Lys	Arg	Val	Cys	Gly	Asn	Glu	Arg	Pro	Ala	Pro	Ile	Gln	Ser	Ile	200	205	210	
Gly	Ser	Ser	Leu	His	Val	Leu	Phe	His	Ser	Asp	Gly	Ser	Lys	Asn	215	220	225	
Phe	Asp	Gly	Phe	His	Ala	Ile	Tyr	Glu	Glu	Ile	Thr	Ala	Cys	Ser	230	235	240	
Ser	Ser	Pro	Cys	Phe	His	Asp	Gly	Thr	Cys	Val	Leu	Asp	Lys	Ala	245	250	255	
Gly	Ser	Tyr	Lys	Cys	Ala	Cys	Leu	Ala	Gly	Tyr	Thr	Gly	Gln	Arg	260	265	270	
Cys	Glu	Asn	Leu	Leu	Glu	Glu	Arg	Asn	Cys	Ser	Asp	Pro	Gly	Gly	275	280	285	

Pro Val Asn Gly Tyr Gln Lys Ile Thr Gly Gly Pro Gly Leu Ile	290	295	300
Asn Gly Arg His Ala Lys Ile Gly Thr Val Val Ser Phe Phe Cys	305	310	315
Asn Asn Ser Tyr Val Leu Ser Gly Asn Glu Lys Arg Thr Cys Gln	320	325	330
Gln Asn Gly Glu Trp Ser Gly Lys Gln Pro Ile Cys Ile Lys Ala	335	340	345
Cys Arg Glu Pro Lys Ile Ser Asp Leu Val Arg Arg Arg Val Leu	350	355	360
Pro Met Gln Val Gln Ser Arg Glu Thr Pro Leu His Gln Leu Tyr	365	370	375
Ser Ala Ala Phe Ser Lys Gln Lys Leu Gln Ser Ala Pro Thr Lys	380	385	390
Lys Pro Ala Leu Pro Phe Gly Asp Leu Pro Met Gly Tyr Gln His	395	400	405
Leu His Thr Gln Leu Gln Tyr Glu Cys Ile Ser Pro Phe Tyr Arg	410	415	420
Arg Leu Gly Ser Ser Arg Arg Thr Cys Leu Arg Thr Gly Lys Trp	425	430	435
Ser Gly Arg Ala Pro Ser Cys Ile Pro Ile Cys Gly Lys Ile Glu	440	445	450
Asn Ile Thr Ala Pro Lys Thr Gln Gly Leu Arg Trp Pro Trp Gln	455	460	465
Ala Ala Ile Tyr Arg Arg Thr Ser Gly Val His Asp Gly Ser Leu	470	475	480
His Lys Gly Ala Trp Phe Leu Val Cys Ser Gly Ala Leu Val Asn	485	490	495
Glu Arg Thr Val Val Val Ala Ala His Cys Val Thr Asp Leu Gly	500	505	510
Lys Val Thr Met Ile Lys Thr Ala Asp Leu Lys Val Val Leu Gly	515	520	525
Lys Phe Tyr Arg Asp Asp Asp Arg Asp Glu Lys Thr Ile Gln Ser	530	535	540
Leu Gln Ile Ser Ala Ile Ile Leu His Pro Asn Tyr Asp Pro Ile	545	550	555
Leu Leu Asp Ala Asp Ile Ala Ile Leu Lys Leu Leu Asp Lys Ala	560	565	570

Arg	Ile	Ser	Thr	Arg	Val	Gln	Pro	Ile	Cys	Leu	Ala	Ala	Ser	Arg	
				575					580					585	
Asp	Leu	Ser	Thr	Ser	Phe	Gln	Glu	Ser	His	Ile	Thr	Val	Ala	Gly	
				590					595					600	
Trp	Asn	Val	Leu	Ala	Asp	Val	Arg	Ser	Pro	Gly	Phe	Lys	Asn	Asp	
				605					610					615	
Thr	Leu	Arg	Ser	Gly	Val	Val	Ser	Val	Val	Asp	Ser	Leu	Leu	Cys	
				620					625					630	
Glu	Glu	Gln	His	Glu	Asp	His	Gly	Ile	Pro	Val	Ser	Val	Thr	Asp	
				635					640					645	
Asn	Met	Phe	Cys	Ala	Ser	Trp	Glu	Pro	Thr	Ala	Pro	Ser	Asp	Ile	
				650					655					660	
Cys	Thr	Ala	Glu	Thr	Gly	Gly	Ile	Ala	Ala	Val	Ser	Phe	Pro	Gly	
				665					670					675	
Arg	Ala	Ser	Pro	Glu	Pro	Arg	Trp	His	Leu	Met	Gly	Leu	Val	Ser	
				680					685					690	
Trp	Ser	Tyr	Asp	Lys	Thr	Cys	Ser	His	Arg	Leu	Ser	Thr	Ala	Phe	
				695					700					705	
Thr	Lys	Val	Leu	Pro	Phe	Lys	Asp	Trp	Ile	Glu	Arg	Asn	Met	Lys	
				710					715					720	

<210> 39  
 <211> 2571  
 <212> DNA  
 <213> Homo Sapien

<400> 39  
 gggttcctaca tcctctcatc tgagaatcag agagcataat cttcttacgg 50  
 gcccgtagatt tattaacgtg gcttaatctg aaggttctca gtcaaattct 100  
 ttgtgatcta ctgattgtgg gggcatggca aggtttgctt aaaggagctt 150  
 ggctgggttg ggcccttgta gctgacagaa ggtggccagg gagaatgcag 200  
 cacactgctc ggagaatgaa ggcgcttctg ttgctggtct tgccttggtt 250  
 cagtctgct aactacattg acaatgtggg caacctgcac ttctgtatt 300  
 cagaactctg taaaggtgcc tccactacg gcctgaccaa agataggaag 350  
 aggcgctcac aagatggctg tccagacggc tgtgagagcc tcacagccac 400  
 ggctccctcc ccagaggttt ctgcagctgc caccatctcc ttaatgacag 450  
 acgagcctgg cctagacaac cctgcctacg tgcctcggc agaggacggg 500  
 cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc 550

acggcccttt gagagatcca ctattagaag cagatcattt aaaaaataa 600  
 atcgagcttt gagtgttctt cgaaggacaa agagcgggag tgcagttgcc 650  
 aaccatgccg accagggcag ggaaaattct gaaaacacca ctgcccctga 700  
 agtctttcca aggttgtacc acctgattcc agatggtgaa attaccagca 750  
 tcaagatcaa tcgagtagat ccagtgaaa gcctctctat taggctggtg 800  
 ggaggtagcg aaaccccact ggtccatata attatccaac acatttatcg 850  
 tgatggggtg atcgccagag acggccggct actgccagga gacatcattc 900  
 taaaggtcaa cgggatggac atcagcaatg tccctcacia ctacgctgtg 950  
 cgtctcctgc ggcagccctg ccaggtgctg tggctgactg tgatgcgtga 1000  
 acagaagttc cgcagcagga acaatggaca ggccccggat gcctacagac 1050  
 cccgagatga cagctttcat gtgattctca acaaaagtag ccccgaggag 1100  
 cagcttgaa taaaactggt gcgcaagggt gatgagcctg gggttttcat 1150  
 cttcaatgtg ctggatggcg gtgtggcata tcgacatggt cagcttgagg 1200  
 agaatgaccg tgtgttagcc atcaatggac atgatcttcg atatggcagc 1250  
 ccagaaagtg cggctcatct gattcaggcc agtgaaagac gtgttcacct 1300  
 cgtcgtgtcc cgccaggttc ggcagcggag ccctgacata tttcaggaag 1350  
 ccggctggaa cagcaatggc agctggtccc cagggccagg ggagaggagc 1400  
 aacactccca agccccctca tcctacaatt acttgtcatg agaaggtggt 1450  
 aaatatccaa aaagaccccg gtgaatctct cggcatgacc gtcgcagggg 1500  
 gagcatcaca tagagaatgg gatttgccta tctatgtcat cagtgttgag 1550  
 cccggaggag tcataagcag agatggaaga ataaaaacag gtgacatttt 1600  
 gttgaatgtg gatgggggtc aactgacaga ggtcagccgg agtgaggcag 1650  
 tggcattatt gaaaagaaca tcctcctcga tagtactcaa agctttggaa 1700  
 gtcaaagagt atgagcccca ggaagactgc agcagcccag cagccctgga 1750  
 ctccaaccac aacatggccc caccagtgat ctggtcccca tcctgggtca 1800  
 tgtggctgga attaccacgg tgcttgata actgtaaaga tattgtatta 1850  
 cgaagaaaca cagctggaag tctgggcttc tgcatgtag gaggttatga 1900  
 agaatacaat ggaaacaaac cttttttcat caaatccatt gttgaaggaa 1950



caccagcata caatgatgga agaattagat gtggtgatat tcttcttgct 2000  
gtcaatggta gaagtacatc aggaatgata catgcttgct tggcaagact 2050  
gctgaaagaa cttaaaggaa gaattactct aactattggt tcttggcctg 2100  
gcactttttt atagaatcaa tgatgggtca gaggaaaaca gaaaaatcac 2150  
aaataggcta agaagttgaa acactatatt tatcttgta gtttttatat 2200  
ttaaagaaag aatacattgt aaaaatgtca ggaaaagtat gatcatctaa 2250  
tgaaagccag ttacacctca gaaaatatga ttccaaaaaa attaaaacta 2300  
ctagtttttt ttcagtgtgg aggatttctc attactctac aacattgttt 2350  
atattttttt tattcaataa aaagccctaa aacaactaaa atgattgatt 2400  
tgtatacccc actgaattca agctgattta aatttaaaat ttggatatatg 2450  
ctgaagtctg ccaagggtag attatggcca tttttaattt acagctaaaa 2500  
tattttttta aatgcattgc tgagaaacgt tgctttcatc aaacaagaat 2550  
aaatattttt cagaagttaa a 2571

<210> 40  
<211> 632  
<212> PRT  
<213> Homo Sapien

<400> 40  
Met Lys Ala Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala  
1 5 10 15  
Asn Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu  
20 25 30  
Leu Cys Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys  
35 40 45  
Arg Arg Ser Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr  
50 55 60  
Ala Thr Ala Pro Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser  
65 70 75  
Leu Met Thr Asp Glu Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser  
80 85 90  
Ser Ala Glu Asp Gly Gln Pro Ala Ile Ser Pro Val Asp Ser Gly  
95 100 105  
Arg Ser Asn Arg Thr Arg Ala Arg Pro Phe Glu Arg Ser Thr Ile  
110 115 120  
Arg Ser Arg Ser Phe Lys Lys Ile Asn Arg Ala Leu Ser Val Leu

				125					130					135
Arg	Arg	Thr	Lys	Ser	Gly	Ser	Ala	Val	Ala	Asn	His	Ala	Asp	Gln
				140					145					150
Gly	Arg	Glu	Asn	Ser	Glu	Asn	Thr	Thr	Ala	Pro	Glu	Val	Phe	Pro
				155					160					165
Arg	Leu	Tyr	His	Leu	Ile	Pro	Asp	Gly	Glu	Ile	Thr	Ser	Ile	Lys
				170					175					180
Ile	Asn	Arg	Val	Asp	Pro	Ser	Glu	Ser	Leu	Ser	Ile	Arg	Leu	Val
				185					190					195
Gly	Gly	Ser	Glu	Thr	Pro	Leu	Val	His	Ile	Ile	Ile	Gln	His	Ile
				200					205					210
Tyr	Arg	Asp	Gly	Val	Ile	Ala	Arg	Asp	Gly	Arg	Leu	Leu	Pro	Gly
				215					220					225
Asp	Ile	Ile	Leu	Lys	Val	Asn	Gly	Met	Asp	Ile	Ser	Asn	Val	Pro
				230					235					240
His	Asn	Tyr	Ala	Val	Arg	Leu	Leu	Arg	Gln	Pro	Cys	Gln	Val	Leu
				245					250					255
Trp	Leu	Thr	Val	Met	Arg	Glu	Gln	Lys	Phe	Arg	Ser	Arg	Asn	Asn
				260					265					270
Gly	Gln	Ala	Pro	Asp	Ala	Tyr	Arg	Pro	Arg	Asp	Asp	Ser	Phe	His
				275					280					285
Val	Ile	Leu	Asn	Lys	Ser	Ser	Pro	Glu	Glu	Gln	Leu	Gly	Ile	Lys
				290					295					300
Leu	Val	Arg	Lys	Val	Asp	Glu	Pro	Gly	Val	Phe	Ile	Phe	Asn	Val
				305					310					315
Leu	Asp	Gly	Gly	Val	Ala	Tyr	Arg	His	Gly	Gln	Leu	Glu	Glu	Asn
				320					325					330
Asp	Arg	Val	Leu	Ala	Ile	Asn	Gly	His	Asp	Leu	Arg	Tyr	Gly	Ser
				335					340					345
Pro	Glu	Ser	Ala	Ala	His	Leu	Ile	Gln	Ala	Ser	Glu	Arg	Arg	Val
				350					355					360
His	Leu	Val	Val	Ser	Arg	Gln	Val	Arg	Gln	Arg	Ser	Pro	Asp	Ile
				365					370					375
Phe	Gln	Glu	Ala	Gly	Trp	Asn	Ser	Asn	Gly	Ser	Trp	Ser	Pro	Gly
				380					385					390
Pro	Gly	Glu	Arg	Ser	Asn	Thr	Pro	Lys	Pro	Leu	His	Pro	Thr	Ile
				395					400					405
Thr	Cys	His	Glu	Lys	Val	Val	Asn	Ile	Gln	Lys	Asp	Pro	Gly	Glu

410	415	420
Ser Leu Gly Met Thr Val Ala Gly Gly	Ala Ser His Arg Glu Trp	
425	430	435
Asp Leu Pro Ile Tyr Val Ile Ser Val	Glu Pro Gly Gly Val Ile	
440	445	450
Ser Arg Asp Gly Arg Ile Lys Thr Gly	Asp Ile Leu Leu Asn Val	
455	460	465
Asp Gly Val Glu Leu Thr Glu Val Ser	Arg Ser Glu Ala Val Ala	
470	475	480
Leu Leu Lys Arg Thr Ser Ser Ser Ile	Val Leu Lys Ala Leu Glu	
485	490	495
Val Lys Glu Tyr Glu Pro Gln Glu Asp	Cys Ser Ser Pro Ala Ala	
500	505	510
Leu Asp Ser Asn His Asn Met Ala Pro	Pro Ser Asp Trp Ser Pro	
515	520	525
Ser Trp Val Met Trp Leu Glu Leu Pro	Arg Cys Leu Tyr Asn Cys	
530	535	540
Lys Asp Ile Val Leu Arg Arg Asn Thr	Ala Gly Ser Leu Gly Phe	
545	550	555
Cys Ile Val Gly Gly Tyr Glu Glu Tyr	Asn Gly Asn Lys Pro Phe	
560	565	570
Phe Ile Lys Ser Ile Val Glu Gly Thr	Pro Ala Tyr Asn Asp Gly	
575	580	585
Arg Ile Arg Cys Gly Asp Ile Leu Leu	Ala Val Asn Gly Arg Ser	
590	595	600
Thr Ser Gly Met Ile His Ala Cys Leu	Ala Arg Leu Leu Lys Glu	
605	610	615
Leu Lys Gly Arg Ile Thr Leu Thr Ile	Val Ser Trp Pro Gly Thr	
620	625	630

Phe Leu

<210> 41  
 <211> 1964  
 <212> DNA  
 <213> Homo Sapien

<400> 41  
 accaggcatt gtatcttcag ttgtcatcaa gttcgcaatc agattggaaa 50  
 agctcaactt gaagctttct tgctgcagt gaagcagaga gatagatatt 100

attcacgtaa taaaaaacat gggcttcaac ctgactttcc acctttccta 150  
 caaattccga ttactgttgc tgttgacttt gtgcctgaca gtgggttgggt 200  
 gggccaccag taactacttc gtgggtgcc a ttcaagagat tcctaaagca 250  
 aaggagttca tggctaattt ccataagacc ctcatTTTtg ggaagggaaa 300  
 aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350  
 cttctgtgtc tccttacctc agaggccaga gcaagctcat tttcaaacca 400  
 gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450  
 ccggtatcgc cctcaggaat gtaaagcttt acagagggtc gccatcctcg 500  
 ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550  
 catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600  
 ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggt 650  
 atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700  
 gtggacctgg taccgcagaa tgactttaac ctttacaagt gtgaggagca 750  
 tcccaagcat ctgggtggtt gcaggaacag cactgggtac aggttacgtt 800  
 acagtggata ttttgggggt gttactgcc taagcagaga gcagtTTTTc 850  
 aaggtgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900  
 tgacctcaga ctcagggttg agctccaaag aatgaaaatt tcccggcccc 950  
 tgcctgaagt gggtaaatat acaatggtct tccacactag agacaaaggc 1000  
 aatgaggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050  
 ctggagaaca gatggggttga gtagttgttc ttataaatta gtatctgtgg 1100  
 aacacaatcc tttatatatc aacatcacag tggatttctg gtttggtgca 1150  
 tgaccctgga tcttttggtg atgtttggaa gaactgattc tttgtttgca 1200  
 ataattttgg cctagagact tcaaatagta gcacacatta agaacctgtt 1250  
 acagctcatt gttgagctga attttccctt tttgtatttt cttagcagag 1300  
 ctctggtga tgtagagtat aaaacagttg taacaagaca gctttcttag 1350  
 tcattttgat catgaggggt aaatattgta atatggatac ttgaaggact 1400  
 ttatataaaa ggatgactca aaggataaaa tgaacgctat ttgaggactc 1450  
 tgggtgaagg agatttattt aaatttgaag taatatatta tgggataaaa 1500  
 ggccacagga aataagactg ctgaatgtct gagagaacca gagttgttct 1550

cgtccaaggt agaaaggtac gaagatacaa tactgttatt catttatcct 1600  
 gtacaatcat ctgtgaagtg gtggtgtcag gtgagaaggc gtccacaaaa 1650  
 gaggggagaa aaggcgacga atcaggacac agtgaacttg ggaatgaaga 1700  
 ggtagcagga ggggtggagtg tcggctgcaa aggcagcagt agctgagctg 1750  
 gttgcaggtg ctgatagcct tcaggggagg acctgcccag gtatgccttc 1800  
 cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850  
 tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900  
 acatattaac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950  
 gtgaaaaagc aaaa 1964

<210> 42  
 <211> 344  
 <212> PRT  
 <213> Homo Sapien

<400> 42  
 Met Gly Phe Asn Leu Thr Phe His Leu Ser Tyr Lys Phe Arg Leu  
 1 5 10 15  
 Leu Leu Leu Leu Thr Leu Cys Leu Thr Val Val Gly Trp Ala Thr  
 20 25 30  
 Ser Asn Tyr Phe Val Gly Ala Ile Gln Glu Ile Pro Lys Ala Lys  
 35 40 45  
 Glu Phe Met Ala Asn Phe His Lys Thr Leu Ile Leu Gly Lys Gly  
 50 55 60  
 Lys Thr Leu Thr Asn Glu Ala Ser Thr Lys Lys Val Glu Leu Asp  
 65 70 75  
 Asn Cys Pro Ser Val Ser Pro Tyr Leu Arg Gly Gln Ser Lys Leu  
 80 85 90  
 Ile Phe Lys Pro Asp Leu Thr Leu Glu Glu Val Gln Ala Glu Asn  
 95 100 105  
 Pro Lys Val Ser Arg Gly Arg Tyr Arg Pro Gln Glu Cys Lys Ala  
 110 115 120  
 Leu Gln Arg Val Ala Ile Leu Val Pro His Arg Asn Arg Glu Lys  
 125 130 135  
 His Leu Met Tyr Leu Leu Glu His Leu His Pro Phe Leu Gln Arg  
 140 145 150  
 Gln Gln Leu Asp Tyr Gly Ile Tyr Val Ile His Gln Ala Glu Gly  
 155 160 165

Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	170	175	180
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	185	190	195
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	200	205	210
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	215	220	225
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	230	235	240
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	245	250	255
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln	260	265	270
Arg	Met	Lys	Ile	Ser	Arg	Pro	Leu	Pro	Glu	Val	Gly	Lys	Tyr	Thr	275	280	285
Met	Val	Phe	His	Thr	Arg	Asp	Lys	Gly	Asn	Glu	Val	Asn	Ala	Glu	290	295	300
Arg	Met	Lys	Leu	Leu	His	Gln	Val	Ser	Arg	Val	Trp	Arg	Thr	Asp	305	310	315
Gly	Leu	Ser	Ser	Cys	Ser	Tyr	Lys	Leu	Val	Ser	Val	Glu	His	Asn	320	325	330
Pro	Leu	Tyr	Ile	Asn	Ile	Thr	Val	Asp	Phe	Trp	Phe	Gly	Ala		335	340	

<210> 43

<211> 485

<212> DNA

<213> Homo Sapien

<400> 43

```

gctcaagacc cagcagtggg acagccagac agacggcacg atggcactga 50
gctcccagat ctgggccgct tgcctcctgc tcctcctcct cctcgccagc 100
ctgaccagtg gctctgtttt cccacaacag acgggacaac ttgcagagct 150
gcaaccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200
agaggcgaag gaggcgagac acccacttcc ccatctgcat tttctgctgc 250
ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300
acctgccctg ccccggtccc ctcccttcct tattttattcc tgctgcccc 350
gaacataggt cttggaataa aatggctggt tcttttgttt tccaaaaaaa 400

```

```

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 44
<211> 84
<212> PRT
<213> Homo Sapien

<400> 44
Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu
  1              5              10              15

Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln
              20              25              30

Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala
              35              40              45

Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp
              50              55              60

Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg
              65              70              75

Ser Lys Cys Gly Met Cys Cys Lys Thr
              80

```

```

<210> 45
<211> 1076
<212> DNA
<213> Homo Sapien

```

```

<400> 45
gtggcttcat ttcagtggct gacttccaga gagcaatatg gctgggtccc 50

caacatgcct caccctcatc tatatccttt ggcagctcac agggtcagca 100

gcctctggac ccgtgaaaga gctggtcggt tccgttggtg gggccgtgac 150

tttccccctg aagtccaaag taaagcaagt tgactctatt gtctggacct 200

tcaacacaac ccctcttgtc accatacagc cagaaggggg cactatcata 250

gtgacccaaa atcgtaatat ggagagagta gacttcccag atggaggcta 300

ctccctgaag ctgagcaaac tgaagaagaa tgactcaggg atctactatg 350

tggggatata cagctcatca ctccagcagc cctccaccca ggagtacgtg 400

ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450

gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattggaac 500

atggggaaga ggatgtgatt tatacctgga aggccttggg gcaagcagcc 550

```

aatgagtcctc ataatgggtc catcctcccc atctcctgga gatggggaga 600  
aagtgatatg accttcatct gcgttgccag gaaccctgtc agcagaaact 650  
tctcaagccc catccttgcc aggaagctct gtgaagggtgc tgctgatgac 700  
ccagattcct ccatggctct cctgtgtctc ctggttggtgc cctcctgct 750  
cagtctcttt gtactggggc tatttctttg gtttctgaag agagagagac 800  
aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact 850  
cctaacatat gccccattc tggagagaac acagagtacg acacaatccc 900  
tcacactaat agaacaatcc taaaggaaga tccagcaaat acggtttact 950  
ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcagc 1000  
atgccagaca caccaaggct atttgctat gagaatgtta tctagacagc 1050  
agtgcactcc cctaagtctc tgctca 1076

<210> 46  
<211> 335  
<212> PRT  
<213> Homo Sapien

<400> 46  
Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp  
1 5 10 15  
Gln Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val  
20 25 30  
Gly Ser Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val  
35 40 45  
Lys Gln Val Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu  
50 55 60  
Val Thr Ile Gln Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn  
65 70 75  
Arg Asn Arg Glu Arg Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu  
80 85 90  
Lys Leu Ser Lys Leu Lys Lys Asn Asp Ser Gly Ile Tyr Tyr Val  
95 100 105  
Gly Ile Tyr Ser Ser Ser Leu Gln Gln Pro Ser Thr Gln Glu Tyr  
110 115 120  
Val Leu His Val Tyr Glu His Leu Ser Lys Pro Lys Val Thr Met  
125 130 135  
Gly Leu Gln Ser Asn Lys Asn Gly Thr Cys Val Thr Asn Leu Thr  
140 145 150



Cys	Cys	Met	Glu	His	Gly	Glu	Glu	Asp	Val	Ile	Tyr	Thr	Trp	Lys	155	160	165
Ala	Leu	Gly	Gln	Ala	Ala	Asn	Glu	Ser	His	Asn	Gly	Ser	Ile	Leu	170	175	180
Pro	Ile	Ser	Trp	Arg	Trp	Gly	Glu	Ser	Asp	Met	Thr	Phe	Ile	Cys	185	190	195
Val	Ala	Arg	Asn	Pro	Val	Ser	Arg	Asn	Phe	Ser	Sér	Pro	Ile	Leu	200	205	210
Ala	Arg	Lys	Leu	Cys	Glu	Gly	Ala	Ala	Asp	Asp	Pro	Asp	Ser	Ser	215	220	225
Met	Val	Leu	Leu	Cys	Leu	Leu	Leu	Val	Pro	Leu	Leu	Leu	Ser	Leu	230	235	240
Phe	Val	Leu	Gly	Leu	Phe	Leu	Trp	Phe	Leu	Lys	Arg	Glu	Arg	Gln	245	250	255
Glu	Glu	Tyr	Ile	Glu	Glu	Lys	Lys	Arg	Val	Asp	Ile	Cys	Arg	Glu	260	265	270
Thr	Pro	Asn	Ile	Cys	Pro	His	Ser	Gly	Glu	Asn	Thr	Glu	Tyr	Asp	275	280	285
Thr	Ile	Pro	His	Thr	Asn	Arg	Thr	Ile	Leu	Lys	Glu	Asp	Pro	Ala	290	295	300
Asn	Thr	Val	Tyr	Ser	Thr	Val	Glu	Ile	Pro	Lys	Lys	Met	Glu	Asn	305	310	315
Pro	His	Ser	Leu	Leu	Thr	Met	Pro	Asp	Thr	Pro	Arg	Leu	Phe	Ala	320	325	330
Tyr	Glu	Asn	Val	Ile											335		

<210> 47  
 <211> 766  
 <212> DNA  
 <213> Homo Sapien

<400> 47  
 ggctcgagcg tttctgagcc aggggtgacc atgacctgct gcgaaggatg 50  
 gacatcctgc aatggattca gcctgctggt tctactgctg ttaggagtag 100  
 ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaattt 150  
 tctcaaaacc ccatctcttg ctttgagtgg tggttcccag gaattatagg 200  
 agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250  
 aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300

agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350  
 ggctctctta aaaggtcctc tcatgtgtaa ttctccaagc aacagtaatg 400  
 ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450  
 ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500  
 caataaaccc accagtaacg acaccatggc gagtggctgg agagcatcta 550  
 gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600  
 gtatttttag gtctattgct tgttgaatt ctggaggtcc tgtttgggct 650  
 cagtcagata gtcacgggtt tccttggctg tctgtgtgga gtctctaagc 700  
 gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750  
 gtttgaaaaa aaaaaa 766

<210> 48  
 <211> 229  
 <212> PRT  
 <213> Homo Sapien

<400> 48  
 Met Thr Cys Cys Glu Gly Trp Thr Ser Cys Asn Gly Phe Ser Leu  
 1 5 10 15  
 Leu Val Leu Leu Leu Gly Val Val Leu Asn Ala Ile Pro Leu  
 20 25 30  
 Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile  
 35 40 45  
 Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu  
 50 55 60  
 Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg  
 65 70 75  
 Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe  
 80 85 90  
 Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser  
 95 100 105  
 Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser  
 110 115 120  
 Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp  
 125 130 135  
 Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser  
 140 145 150  
 Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr

155	160	165
Met Ala Ser Gly Trp Arg Ala Ser Ser	Phe His Phe Asp Ser Glu	
170	175	180
Glu Asn Lys His Arg Leu Ile His Phe	Ser Val Phe Leu Gly Leu	
185	190	195
Leu Leu Val Gly Ile Leu Glu Val Leu	Phe Gly Leu Ser Gln Ile	
200	205	210
Val Ile Gly Phe Leu Gly Cys Leu Cys	Gly Val Ser Lys Arg Arg	
215	220	225
Ser Gln Ile Val		

<210> 49  
 <211> 636  
 <212> DNA  
 <213> Homo Sapien

<400> 49  
 atccgttctc tgcgctgcc a gctcaggtga gccctcgcca aggtgacctc 50  
 gcaggacact ggtgaaggag cagtgaggaa cctgcagagt cacacagttg 100  
 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150  
 cgccccagtg cctctcccc tgcagccctg cccctcgaac tgtgacatgg 200  
 agagagtgac cctggccctt ctctactgg caggcctgac tgccttgga 250  
 gccaatgacc catttgcaa taaagacgat cccttctact atgactggaa 300  
 aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350  
 ggatcgcggc agttctgagt ggcaaatgca aatacaagag cagccagaag 400  
 cagcacagtc ctgtacctga gaaggccatc ccatcatca ctccaggctc 450  
 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500  
 taacactggc cccagcacc tcctccctg ggaggcctta tcctcaagga 550  
 aggacttctc tccaagggca ggctgttagg cccctttctg atcaggaggc 600  
 ttctttatga attaaactcg cccaccacc ccctca 636

<210> 50  
 <211> 89  
 <212> PRT  
 <213> Homo Sapien

<400> 50  
 Met Glu Arg Val Thr Leu Ala Leu Leu Leu Ala Gly Leu Thr  
 1 5 10 15

Ala	Leu	Glu	Ala	Asn	Asp	Pro	Phe	Ala	Asn	Lys	Asp	Asp	Pro	Phe
				20					25					30
Tyr	Tyr	Asp	Trp	Lys	Asn	Leu	Gln	Leu	Ser	Gly	Leu	Ile	Cys	Gly
				35					40					45
Gly	Leu	Leu	Ala	Ile	Ala	Gly	Ile	Ala	Ala	Val	Leu	Ser	Gly	Lys
				50					55					60
Cys	Lys	Tyr	Lys	Ser	Ser	Gln	Lys	Gln	His	Ser	Pro	Val	Pro	Glu
				65					70					75
Lys	Ala	Ile	Pro	Leu	Ile	Thr	Pro	Gly	Ser	Ala	Thr	Thr	Cys	
				80					85					

<210> 51  
 <211> 1734  
 <212> DNA  
 <213> Homo Sapien

<400> 51  
 gtggactctg agaagcccag gcagttgagg acaggagaga gaaggctgca 50  
 gacccagagg gagggaggac agggagtcgg aaggaggagg acagaggagg 100  
 gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150  
 agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200  
 cctggcctgc ctctgctgg ccctctgcct gggcagtggg gaggctggcc 250  
 ccctgcagag cggagaggaa agcactggga caaatattgg ggaggccctt 300  
 ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350  
 caaagaggcc ggaggggcag ctggctctaa agtcagttag gcccttggcc 400  
 aagggaaccag agaagcagtt ggcactggag tcaggcaggt tccaggcttt 450  
 ggcgcagcag atgctttggg caacagggtc ggggaagcag cccatgctct 500  
 gggaaacact gggcacgaga ttggcagaca ggcagaagat gtcattcgac 550  
 acggagcaga tgctgtccgc ggctcctggc aggggggtgcc tggccacagt 600  
 ggtgcttggg aaacttctgg aggccatggc atctttggct ctcaaggtgg 650  
 ccttgagggc cagggccagg gcaatcctgg aggtctgggg actccgtggg 700  
 tccacggata ccccgaaac tcagcaggca gctttggaat gaatcctcag 750  
 ggagctccct ggggtcaagg aggcaatgga gggccaccaa actttgggac 800  
 caaactcag ggagctgtgg ccagcctgg ctatggttca gtgagagcca 850  
 gcaaccagaa tgaagggtgc acgaatcccc caccatctgg ctgaggtgga 900

ggctccagca actctggggg aggcagcggc tcacagtcgg gcagcagtgg 950  
 cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000  
 gcagtggcag cagcagtggc agcagcagtg gcggcagcag tggcggcagc 1050  
 agtgggtggca gcagtggcaa cagtgggtggc agcagaggtg acagcggcag 1100  
 tgagtcctcc tggggatcca gcaccggctc ctctccggc aaccacggtg 1150  
 ggagcggcgg aggaaatgga cataaaccgg ggtgtgaaaa gccagggaat 1200  
 gaagcccgcg ggagcgggga atctgggatt cagggttca gaggacaggg 1250  
 agtttccagc aacatgaggg aaataagcaa agagggcaat cgcctccttg 1300  
 gaggtcttg agacaattat cgggggcaag ggtcgagctg gggcagtgga 1350  
 ggaggtgacg ctgttggtgg agtcaatact gtgaactctg agacgtctcc 1400  
 tgggatgttt aactttgaca ctttctggaa gaatttttaa tccaagctgg 1450  
 gtttcatcaa ctgggatgcc ataaacaagg accagagaag ctctgcctc 1500  
 ccgtgacctc cagacaagga gccaccagat tggatgggag ccccccact 1550  
 ccctccttaa aacaccaccc tctcatcact aatctcagcc cttgcccttg 1600  
 aaataaacct tagctgcccc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1734

<210> 52  
 <211> 440  
 <212> PRT  
 <213> Homo Sapien

<400> 52  
 Met Lys Phe Gln Gly Pro Leu Ala Cys Leu Leu Leu Ala Leu Cys  
 1 5 10 15  
 Leu Gly Ser Gly Glu Ala Gly Pro Leu Gln Ser Gly Glu Glu Ser  
 20 25 30  
 Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp  
 35 40 45  
 Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly  
 50 55 60  
 Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr  
 65 70 75  
 Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly  
 80 85 90

Ala Ala Asp Ala	Leu Gly Asn Arg Val	Gly Glu Ala Ala His Ala	95	100	105
Leu Gly Asn Thr	Gly His Glu Ile Gly Arg	Gln Ala Glu Asp Val	110	115	120
Ile Arg His Gly	Ala Asp Ala Val Arg	Gly Ser Trp Gln Gly Val	125	130	135
Pro Gly His Ser	Gly Ala Trp Glu Thr	Ser Gly Gly His Gly Ile	140	145	150
Phe Gly Ser Gln	Gly Gly Leu Gly Gly	Gln Gly Gln Gly Asn Pro	155	160	165
Gly Gly Leu Gly	Thr Pro Trp Val His	Gly Tyr Pro Gly Asn Ser	170	175	180
Ala Gly Ser Phe	Gly Met Asn Pro Gln	Gly Ala Pro Trp Gly Gln	185	190	195
Gly Gly Asn Gly	Gly Pro Pro Asn Phe	Gly Thr Asn Thr Gln Gly	200	205	210
Ala Val Ala Gln	Pro Gly Tyr Gly Ser	Val Arg Ala Ser Asn Gln	215	220	225
Asn Glu Gly Cys	Thr Asn Pro Pro Pro	Ser Gly Ser Gly Gly Gly	230	235	240
Ser Ser Asn Ser	Gly Gly Gly Ser Gly	Ser Gln Ser Gly Ser Ser	245	250	255
Gly Ser Gly Ser	Asn Gly Asp Asn Asn	Asn Gly Ser Ser Ser Gly	260	265	270
Gly Ser Ser Ser	Gly Ser Ser Ser Gly	Ser Ser Ser Gly Gly Ser	275	280	285
Ser Gly Gly Ser	Ser Gly Gly Ser Ser	Gly Asn Ser Gly Gly Ser	290	295	300
Arg Gly Asp Ser	Gly Ser Glu Ser Ser	Trp Gly Ser Ser Thr Gly	305	310	315
Ser Ser Ser Gly	Asn His Gly Gly Ser	Gly Gly Gly Asn Gly His	320	325	330
Lys Pro Gly Cys	Glu Lys Pro Gly Asn	Glu Ala Arg Gly Ser Gly	335	340	345
Glu Ser Gly Ile	Gln Gly Phe Arg Gly	Gln Gly Val Ser Ser Asn	350	355	360
Met Arg Glu Ile	Ser Lys Glu Gly Asn	Arg Leu Leu Gly Gly Ser	365	370	375

Gly	Asp	Asn	Tyr	Arg	Gly	Gln	Gly	Ser	Ser	Trp	Gly	Ser	Gly	Gly
				380				385					390	
Gly	Asp	Ala	Val	Gly	Gly	Val	Asn	Thr	Val	Asn	Ser	Glu	Thr	Ser
				395				400					405	
Pro	Gly	Met	Phe	Asn	Phe	Asp	Thr	Phe	Trp	Lys	Asn	Phe	Lys	Ser
				410				415					420	
Lys	Leu	Gly	Phe	Ile	Asn	Trp	Asp	Ala	Ile	Asn	Lys	Asp	Gln	Arg
				425				430					435	
Ser	Ser	Arg	Ile	Pro										
				440										

<210> 53  
 <211> 1676  
 <212> DNA  
 <213> Homo Sapien

<400> 53  
 ggagaagagg ttgtgtggga caagctgctc ccgacagaag gatgtcgctg 50  
 ctgagcctgc cctggctggg cctcagaccg gtggcaatgt ccccatggct 100  
 actcctgctg ctggttgtgg gctcctggct actcgccgc atcctggctt 150  
 ggacctatgc cttctataac aactgccgcc ggctccagtg tttcccacag 200  
 cccccaaaac ggaactggtt ttggggtcac ctgggcctga tcaactctac 250  
 agaggagggc ttgaaggact cgaccagat gtcggccacc tattcccagg 300  
 gctttacggt atggctgggt cccatcatcc ccttcacgt tttatgccac 350  
 cctgacacca tccggtctat caccaatgcc tcagctgcca ttgcacccaa 400  
 ggataatctc ttcacaggt tctgaagcc ctggctggga gaagggatac 450  
 tgctgagtgg cggtgacaag tggagccgcc accgtcggat gctgacgcc 500  
 gccttccatt tcaacatcct gaagtcctat ataacgatct tcaacaagag 550  
 tgcaaacatc atgcttgaca agtggcagca cctggcctca gagggcagca 600  
 gtcgtctgga catggttgag cacatcagcc tcatgacctt ggacagtcta 650  
 cagaaatgca tcttcagctt tgacagccat tgtcaggaga ggcccagtga 700  
 atatattgcc accatcttgg agctcagtgc cttgttagag aaaagaagcc 750  
 agcatatcct ccagcacatg gactttctgt attacctctc ccatgacggg 800  
 cggcgcttcc acagggcctg ccgcctggtg catgacttca cagacgctgt 850  
 catccgggag cggcgtcgca cctccccac tcagggtatt gatgattttt 900  
 tcaaagacaa agccaagtcc aagactttgg atttcattga tgtgcttctg 950

ctgagcaagg atgaagatgg gaaggcattg tcagatgagg atataagagc 1000  
 agaggctgac accttcatgt ttggaggcca tgacaccacg gccagtggcc 1050  
 tctcctgggt cctgtacaac cttgcgaggc acccagaata ccaggagcgc 1100  
 tgccgacagg aggtgcaaga gcttctgaag gaccgcgac ctaaagagat 1150  
 tgaatgggac gacctggccc agctgccctt cctgaccatg tgcgtgaagg 1200  
 agagcctgag gttacatccc ccagctccct tcctctcccg atgctgcacc 1250  
 caggacattg ttctcccaga tggccgagtc atccccaaag gcattacctg 1300  
 cctcatcgat attatagggg tccatcacia cccaactgtg tggccggatc 1350  
 ctgaggtcta cgacccttc cgctttgacc cagagaacag caaggggagg 1400  
 tcacctctgg cttttattcc tttctccgca gggcccagga actgcatcgg 1450  
 gcaggcgctt gccatggcgg agatgaaagt ggtcctggcg ttgatgctgc 1500  
 tgcacttccg gttcctgcc gaccacactg agccccgcag gaagctggaa 1550  
 ttgatcatgc gcgccgaggg cgggctttgg ctgcgggtgg agcccctgaa 1600  
 tgtaggcttg cagtgacttt ctgaccatc cacctgtttt tttgcagatt 1650  
 gtcatgaata aaacggtgct gtcaaa 1676

<210> 54

<211> 524

<212> PRT

<213> Homo Sapien

<400> 54

Met	Ser	Leu	Leu	Ser	Leu	Pro	Trp	Leu	Gly	Leu	Arg	Pro	Val	Ala
1				5					10					15
Met	Ser	Pro	Trp	Leu	Leu	Leu	Leu	Leu	Val	Val	Gly	Ser	Trp	Leu
				20					25					30
Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys
				35					40					45
Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe
				50					55					60
Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys
				65					70					75
Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val
				80					85					90
Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp
				95					100					105



Thr	Ile	Arg	Ser	Ile	Thr	Asn	Ala	Ser	Ala	Ala	Ile	Ala	Pro	Lys	110	115	120
Asp	Asn	Leu	Phe	Ile	Arg	Phe	Leu	Lys	Pro	Trp	Leu	Gly	Glu	Gly	125	130	135
Ile	Leu	Leu	Ser	Gly	Gly	Asp	Lys	Trp	Ser	Arg	His	Arg	Arg	Met	140	145	150
Leu	Thr	Pro	Ala	Phe	His	Phe	Asn	Ile	Leu	Lys	Ser	Tyr	Ile	Thr	155	160	165
Ile	Phe	Asn	Lys	Ser	Ala	Asn	Ile	Met	Leu	Asp	Lys	Trp	Gln	His	170	175	180
Leu	Ala	Ser	Glu	Gly	Ser	Ser	Arg	Leu	Asp	Met	Phe	Glu	His	Ile	185	190	195
Ser	Leu	Met	Thr	Leu	Asp	Ser	Leu	Gln	Lys	Cys	Ile	Phe	Ser	Phe	200	205	210
Asp	Ser	His	Cys	Gln	Glu	Arg	Pro	Ser	Glu	Tyr	Ile	Ala	Thr	Ile	215	220	225
Leu	Glu	Leu	Ser	Ala	Leu	Val	Glu	Lys	Arg	Ser	Gln	His	Ile	Leu	230	235	240
Gln	His	Met	Asp	Phe	Leu	Tyr	Tyr	Leu	Ser	His	Asp	Gly	Arg	Arg	245	250	255
Phe	His	Arg	Ala	Cys	Arg	Leu	Val	His	Asp	Phe	Thr	Asp	Ala	Val	260	265	270
Ile	Arg	Glu	Arg	Arg	Arg	Thr	Leu	Pro	Thr	Gln	Gly	Ile	Asp	Asp	275	280	285
Phe	Phe	Lys	Asp	Lys	Ala	Lys	Ser	Lys	Thr	Leu	Asp	Phe	Ile	Asp	290	295	300
Val	Leu	Leu	Leu	Ser	Lys	Asp	Glu	Asp	Gly	Lys	Ala	Leu	Ser	Asp	305	310	315
Glu	Asp	Ile	Arg	Ala	Glu	Ala	Asp	Thr	Phe	Met	Phe	Gly	Gly	His	320	325	330
Asp	Thr	Thr	Ala	Ser	Gly	Leu	Ser	Trp	Val	Leu	Tyr	Asn	Leu	Ala	335	340	345
Arg	His	Pro	Glu	Tyr	Gln	Glu	Arg	Cys	Arg	Gln	Glu	Val	Gln	Glu	350	355	360
Leu	Leu	Lys	Asp	Arg	Asp	Pro	Lys	Glu	Ile	Glu	Trp	Asp	Asp	Leu	365	370	375
Ala	Gln	Leu	Pro	Phe	Leu	Thr	Met	Cys	Val	Lys	Glu	Ser	Leu	Arg	380	385	390

Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp	
				395					400					405	
Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys	
				410					415					420	
Leu	Ile	Asp	Ile	Ile	Gly	Val	His	His	Asn	Pro	Thr	Val	Trp	Pro	
				425					430					435	
Asp	Pro	Glu	Val	Tyr	Asp	Pro	Phe	Arg	Phe	Asp	Pro	Glu	Asn	Ser	
				440					445					450	
Lys	Gly	Arg	Ser	Pro	Leu	Ala	Phe	Ile	Pro	Phe	Ser	Ala	Gly	Pro	
				455					460					465	
Arg	Asn	Cys	Ile	Gly	Gln	Ala	Phe	Ala	Met	Ala	Glu	Met	Lys	Val	
				470					475					480	
Val	Leu	Ala	Leu	Met	Leu	Leu	His	Phe	Arg	Phe	Leu	Pro	Asp	His	
				485					490					495	
Thr	Glu	Pro	Arg	Arg	Lys	Leu	Glu	Leu	Ile	Met	Arg	Ala	Glu	Gly	
				500					505					510	
Gly	Leu	Trp	Leu	Arg	Val	Glu	Pro	Leu	Asn	Val	Gly	Leu	Gln		
				515					520						

<210> 55  
 <211> 644  
 <212> DNA  
 <213> Homo Sapien

<400> 55  
 atcgcatcaa ttgggagtac catcttcctc atgggaccag tgaaacagct 50  
 gaagcgaatg tttgagccta ctcgtttgat tgcaactatc atggtgctgt 100  
 tgtgttttgc acttaccctg tgttctgcct tttggtggca taacaaggga 150  
 cttgcactta tcttctgcat tttgcagtct ttggcattga cgtggtacag 200  
 cctttccttc ataccatttg caagggatgc tgtgaagaag tgttttgccg 250  
 tgtgtcttgc ataattcatg gccagtttta tgaagctttg gaaggcacta 300  
 tggacagaag ctggtggaca gttttgtaac tatcttcgaa acctctgtct 350  
 tacagacatg tgccttttat cttgcagcaa tgtgttgctt gtgattcgaa 400  
 catttgaggg ttacttttgg aagcaacaat acattctcga acctgaatgt 450  
 cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500  
 cctcatgtac ctgtttcctc tctggatgtt gtcccactga attcccatga 550  
 atacaaacct attcagcaac agcaaaaaaa aaaaaaaaaa aaaaaaaaaa 600

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 56

<211> 77

<212> PRT

<213> Homo Sapien

<400> 56

Met Gly Pro Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg  
1 5 10 15

Leu Ile Ala Thr Ile Met Val Leu Leu Cys Phe Ala Leu Thr Leu  
20 25 30

Cys Ser Ala Phe Trp Trp His Asn Lys Gly Leu Ala Leu Ile Phe  
35 40 45

Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe  
50 55 60

Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys  
65 70 75

Leu Ala

<210> 57

<211> 3334

<212> DNA

<213> Homo Sapien

<400> 57

cggctcgagc tcgagccgaa tcggctcgag gggcagtgga gcaccagca 50

ggccgccaac atgctctgtc tgtgcctgta cgtgccggtc atcggggaag 100

cccagaccga gttccagtac tttgagtcga aggggctccc tgccgagctg 150

aagtccattt tcaagctcag tgtcttcac ccctcccagg aattctccac 200

ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250

atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300

aagaagctga ggctggtgtt taagattttg gacaaaaaga atgatggacg 350

cattgacgcg caggagatca tgcagtcctt gcgggacttg ggagtcaaga 400

tatctgaaca gcaggcagaa aaaattctca agagcatgga taaaaacggc 450

acgatgacca tcgactggaa cgagtggaga gactaccacc tcctccacc 500

cgtggaaaac atccccgaga tcattctcta ctggaagcat tccacgatct 550

ttgatgtggg tgagaatcta acggtcccgg atgagttcac agtggaggag 600

aggcagacgg ggatgtggtg gagacacctg gtggcaggag gtggggcagg 650

ggccgtatcc agaacctgca cggccccccct ggacaggctc aaggtgctca 700  
tgcagggtcca tgcctcccgc agcaacaaca tgggcatcgt tgggtggcttc 750  
actcagatga ttcgagaagg agggggccagg tcaactctggc ggggcaatgg 800  
catcaacgtc ctcaaaattg cccccgaatc agccatcaaa ttcatggcct 850  
atgagcagat caagcgctt gttggtagt accaggagac tctgaggatt 900  
cacgagaggc ttgtggcagg gtccttggca ggggccatcg cccagagcag 950  
catctacca atggagggtcc tgaagaccgc gatggcgctg cggaagacag 1000  
gccagtactc aggaatgctg gactgcgcca ggaggatcct ggccagagag 1050  
ggggtggccg ccttctacaa aggctatgtc cccaacatgc tgggcatcat 1100  
cccctatgcc ggcacgacc ttgcagtcta cgagacgctc aagaatgcct 1150  
ggctgcagca ctatgcagtg aacagcgcgg accccggcgt gtttgtgctc 1200  
ctggcctgtg gcacatgtc cagtacctgt ggccagctgg ccagctaccc 1250  
cctggcccta gtcaggaccc ggatgcaggc gcaagcctct attgagggcg 1300  
ctccggagggt gaccatgagc agcctcttca aacatatacct gcggaccgag 1350  
ggggccttcg ggctgtacag ggggctggcc cccaacttca tgaaggatcat 1400  
cccagctgtg agcatcagct acgtggtcta cgagaacctg aagatcacc 1450  
tgggcgtgca gtcgcggtga cggggggagg gccgcccggc agtggactcg 1500  
ctgatacctg gccgcagcct ggggtgtgca gccatctcat tctgtgaatg 1550  
tgccaacact aagctgtctc gagccaagct gtgaaaacc tagacgcacc 1600  
cgcagggagg gtggggagag ctggcaggcc cagggttgt cctgctgacc 1650  
ccagcagacc ctctgttgg ttccagcgaa gaccacaggc attccttagg 1700  
gtccagggtc agcaggctcc gggctcacat gtgtaaggac aggacatttt 1750  
ctgcagtgcc tgccaatagt gagcttggag cctggaggcc ggcttagttc 1800  
ttcatttca cccttgcagc cagctgttgg ccacggcccc tgccctctgg 1850  
tctgccgtgc atctccctgt gccctcttgc tgccctgctg tctgctgagg 1900  
taaggtggga ggagggtac agcccacatc ccacccctc gtccaatccc 1950  
ataatccatg atgaaagggt aggtcacgtg gcctcccagg cctgacttcc 2000  
caacctacag cattgacgcc aacttggctg tgaaggaaga ggaaaggatc 2050  
tggccttgtg gtcactggca tctgagccct gctgatggct ggggctctcg 2100

ggcatgcttg ggagtgcagg gggctcgggc tgcttggcct ggctgcacag 2150  
 aaggcaagtg ctgggggtca tgggtgctctg agctggcctg gaccctgtca 2200  
 ggatgggccc cacctcagaa ccaaactcac tgtccccact gtggcatgag 2250  
 ggcagtggag caccatgttt gagggcgaag ggcagagcgt ttgtgtgttc 2300  
 tggggagggg aggaaaaggt gttggaggcc ttaattatgg actgttgagg 2350  
 aaagggtttt gtccagaagg acaagccgga caaatgagcg acttctgtgc 2400  
 ttccagagga agacgaggga gcaggagctt ggctgactgc tcagagtctg 2450  
 ttctgacgcc ctgggggttc ctgtccaacc ccagcagggg cgcagcggga 2500  
 ccagcccccac attccacttg tgtcactgct tggaacctat ttattttgta 2550  
 tttatttgaa cagagttatg tcctaactat ttttatagat ttgtttaatt 2600  
 aatagcttgt cattttcaag ttcatttttt attcatattt atgttcatgg 2650  
 ttgattgtac cttcccaagc ccgcccagtg ggatgggagg aggaggagaa 2700  
 ggggggcctt gggccgctgc agtcacatct gtccagagaa attccttttg 2750  
 ggactggagg cagaaaagcg gccagaaggc agcagccctg gctcctttcc 2800  
 tttggcaggt tggggaaggg cttgccccca gccttaggat ttcagggttt 2850  
 gactgggggc gtggagagag agggaggaac ctcaataacc ttgaagggtg 2900  
 aatccagtta tttcctgcgc tgcgagggtt tctttatttc actcttttct 2950  
 gaatgtcaag gcagtgaggt gcctctcact gtgaatttgt ggtgggcggg 3000  
 ggctggagga gaggggtggg ggctggctcc gtccctccca gccttctgct 3050  
 gcccttgctt aacaatgccg gccaactggc gacctcacgg ttgcacttcc 3100  
 attccaccag aatgacctga tgaggaaatc ttcaatagga tgcaaagatc 3150  
 aatgcaaaaa ttgttatata tgaacatata actggagtcg tcaaaaagca 3200  
 aattaagaaa gaattggacg ttagaagttg tcatttaaag cagccttcta 3250  
 ataaagttgt ttcaaagctg aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 3334

<210> 58

<211> 469

<212> PRT

<213> Homo Sapien

<400> 58

Met Leu Cys Leu Cys Leu Tyr Val Pro Val Ile Gly Glu Ala Gln

1	5	10	15
Thr Glu Phe Gln Tyr Phe Glu Ser Lys Gly Leu Pro Ala Glu Leu	20	25	30
Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe	35	40	45
Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp	50	55	60
Lys Asp Leu Asp Gly Gln Leu Asp Phe Glu Glu Phe Val His Tyr	65	70	75
Leu Gln Asp His Glu Lys Lys Leu Arg Leu Val Phe Lys Ile Leu	80	85	90
Asp Lys Lys Asn Asp Gly Arg Ile Asp Ala Gln Glu Ile Met Gln	95	100	105
Ser Leu Arg Asp Leu Gly Val Lys Ile Ser Glu Gln Gln Ala Glu	110	115	120
Lys Ile Leu Lys Ser Met Asp Lys Asn Gly Thr Met Thr Ile Asp	125	130	135
Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val Glu Asn	140	145	150
Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe Asp	155	160	165
Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu	170	175	180
Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Gly	185	190	195
Ala Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu	200	205	210
Lys Val Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly	215	220	225
Ile Val Gly Gly Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg	230	235	240
Ser Leu Trp Arg Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro	245	250	255
Glu Ser Ala Ile Lys Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu	260	265	270
Val Gly Ser Asp Gln Glu Thr Leu Arg Ile His Glu Arg Leu Val	275	280	285
Ala Gly Ser Leu Ala Gly Ala Ile Ala Gln Ser Ser Ile Tyr Pro			

290					295					300				
Met	Glu	Val	Leu	Lys	Thr	Arg	Met	Ala	Leu	Arg	Lys	Thr	Gly	Gln
				305					310					315
Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg	Arg	Ile	Leu	Ala	Arg	Glu
				320					325					330
Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val	Pro	Asn	Met	Leu	Gly
				335					340					345
Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu	Thr	Leu
				350					355					360
Lys	Asn	Ala	Trp	Leu	Gln	His	Tyr	Ala	Val	Asn	Ser	Ala	Asp	Pro
				365					370					375
Gly	Val	Phe	Val	Leu	Leu	Ala	Cys	Gly	Thr	Met	Ser	Ser	Thr	Cys
				380					385					390
Gly	Gln	Leu	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met
				395					400					405
Gln	Ala	Gln	Ala	Ser	Ile	Glu	Gly	Ala	Pro	Glu	Val	Thr	Met	Ser
				410					415					420
Ser	Leu	Phe	Lys	His	Ile	Leu	Arg	Thr	Glu	Gly	Ala	Phe	Gly	Leu
				425					430					435
Tyr	Arg	Gly	Leu	Ala	Pro	Asn	Phe	Met	Lys	Val	Ile	Pro	Ala	Val
				440					445					450
Ser	Ile	Ser	Tyr	Val	Val	Tyr	Glu	Asn	Leu	Lys	Ile	Thr	Leu	Gly
				455					460					465

Val Gln Ser Arg

<210> 59  
 <211> 1658  
 <212> DNA  
 <213> Homo Sapien

<400> 59  
 ggaaggcagc ggcagctcca ctcagccagt acccagatac gctgggaacc 50  
 ttccccagcc atggcttccc tggggcagat cctcttctgg agcataatta 100  
 gcatcatcat tattctggct ggagcaattg cactcatcat tggctttggt 150  
 atttcaggga gacactccat cacagtcact actgtcgcct cagctgggaa 200  
 cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250  
 tttctgatat cgtgatacaa tggctgaagg aaggtgtttt aggcttggtc 300  
 catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350

cagaggccgg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct 400  
ctttgcggtt gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450  
tatatcatca cttctaaagg caaggggaat gctaaccttg agtataaaac 500  
tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550  
agaccttgcg gtgtgaggct ccccgatggt tccccagcc cacagtggtc 600  
tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650  
cagctttgag ctgaactctg agaatgtgac catgaagggt gtgtctgtgc 700  
tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaatgac 750  
attgccaaag caacagggga tatcaaagt acagaatcgg agatcaaaag 800  
gcggagtcac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850  
ctttctttgc catcagctgg gcacttctgc ctctcagccc ttacctgatg 900  
ctaaaataat gtgccttggc cacaaaaaag catgcaaagt cattgttaca 950  
acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000  
ttctgggagg aaatgaattc atatctagaa gtctggagt agcaaacaag 1050  
agcaagaaac aaaaagaagc caaaagcaga aggctccaat atgaacaaga 1100  
taaactctatc ttcaaagaca tattagaagt tgggaaaata attcatgtga 1150  
actagacaag tgtgttaaga gtgataagta aaatgcacgt ggagacaagt 1200  
gcatccccag atctcaggga cctccccctg cctgtcacct ggggagttag 1250  
aggacaggat agtgcattgt ctttgtctct gaatttttag ttatatgtgc 1300  
tgtaatgttg ctctgaggaa gccctggaa agtctatccc aacatatcca 1350  
catcttatat tccacaaatt aagctgtagt atgtacccta agacgctgct 1400  
aattgactgc cacttcgcaa ctgagggcg gctgcatttt agtaatgggt 1450  
caaatgattc actttttatg atgcttccaa aggtgccttg gcttctcttc 1500  
ccaactgaca aatgccaaag ttgagaaaaa tgatcataat tttagcataa 1550  
acagagcagt cggggacacc gattttataa ataaactgag caccttcttt 1600  
ttaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650  
aaaaaaaa 1658

<210> 60  
<211> 282



<212> PRT  
 <213> Homo Sapien

<400> 60

Met	Ala	Ser	Leu	Gly	Gln	Ile	Leu	Phe	Trp	Ser	Ile	Ile	Ser	Ile				
1				5					10					15				
Ile	Ile	Ile	Leu	Ala	Gly	Ala	Ile	Ala	Leu	Ile	Ile	Gly	Phe	Gly				
			20						25					30				
Ile	Ser	Gly	Arg	His	Ser	Ile	Thr	Val	Thr	Thr	Val	Ala	Ser	Ala				
			35						40					45				
Gly	Asn	Ile	Gly	Glu	Asp	Gly	Ile	Leu	Ser	Cys	Thr	Phe	Glu	Pro				
			50						55					60				
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly				
			65						70					75				
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu				
			80						85					90				
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala				
			95						100					105				
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val				
			110						115					120				
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser				
			125						130					135				
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe				
			140						145					150				
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr				
			155						160					165				
Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro	Gln	Pro	Thr	Val	Val				
			170						175					180				
Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe	Ser	Glu	Val	Ser				
			185						190					195				
Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr	Met	Lys	Val				
			200						205					210				
Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr	Ser	Cys				
			215						220					225				
Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys	Val				
			230						235					240				
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn				
			245						250					255				
Ser	Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp				
			260						265					270				

Ala Leu Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys  
275 280

<210> 61  
<211> 1617  
<212> DNA  
<213> Homo Sapien

<400> 61  
tgacgtcaga atcaccatgg ccagctatcc ttaccggcag ggctgcccag 50  
gagctgcagg acaagcacca ggagcccctc cgggtagcta ctaccctgga 100  
cccccaata gtggagggca gtatggtagt gggctacccc ctggtggtgg 150  
ttatgggggt cctgcccctg gagggcctta tggaccacca gctggtggag 200  
ggccctatgg acacccaat cctgggatgt tcccctctgg aactccagga 250  
ggaccatatg gcggtgcagc tcccgggggc ccctatggtc agccacctcc 300  
aagttcctac ggtgcccagc agcctgggct ttatggacag ggtggcgccc 350  
ctcccaatgt ggatcctgag gcctactcct ggttcagtc ggtggactca 400  
gatcacagtg gctatatctc catgaaggag ctaaagcagg ccctgggtcaa 450  
ctgcaattgg tcttcattca atgatgagac ctgcctcatg atgataaaca 500  
tgtttgacaa gaccaagtca ggccgcacgc atgtctacgg cttctcagcc 550  
ctgtggaaat tcatccagca gtggaagaac ctcttccagc agtatgaccg 600  
ggaccgctcg ggctccatta gctacacaga gctgcagcaa gctctgtccc 650  
aatggggcta caacctgagc ccccagttca ccagcttct ggtctcccgc 700  
tactgccac gctctgcaa tcttgccatg cagcttgacc gcttcatcca 750  
ggtgtgcacc cagctgcagg tgctgacaga ggccttcggg gagaaggaca 800  
cagctgtaca aggcaacatc cggctcagct tcgaggactt cgtcaccatg 850  
acagcttctc ggatgctatg acccaaccat ctgtggagag tggagtgcac 900  
cagggacctt tcttggttc ttagagtgag agaagtatgt ggacatctct 950  
tcttttctg tccctctaga agaacattct cccttgcttg atgcaacact 1000  
gttccaaaag aggggtggaga gtcctgcac atagccacca aatagtgagg 1050  
accggggctg aggccacaca gataggggcc tgatggagga gaggatagaa 1100  
gttgaatgtc ctgatggcca tgagcagttg agtggcacag cctggcacca 1150  
ggagcaggtc cttgtaatgg agttagtgtc cagtcagctg agctccaccc 1200

tgatgccagt ggtgagtgtt catcggcctg ttaccgtag tacctgtgtt 1250  
 ccctcaccag gccatcctgt caaacgagcc cattttctcc aaagtggaat 1300  
 ctgaccaagc atgagagaga tctgtctatg ggaccagtgg cttggattct 1350  
 gccacacca taaatccttg tgtgttaact tctagctgcc tggggctggc 1400  
 cctgctcaga caaatctgct ccctgggcat ctttggccag gcttctgccc 1450  
 cctgcagctg ggaccctca cttgctgcc atgctctgct cggcttcagt 1500  
 ctccaggaga cagtggcac ctctccctgc caatactttt ttttaattgc 1550  
 attttttttc atttggggcc aaaagtccag tgaaattgta agcttcaata 1600  
 aaaggatgaa actctga 1617

<210> 62  
 <211> 284  
 <212> PRT  
 <213> Homo Sapien

<400> 62  
 Met Ala Ser Tyr Pro Tyr Arg Gln Gly Cys Pro Gly Ala Ala Gly  
 1 5 10 15  
 Gln Ala Pro Gly Ala Pro Pro Gly Ser Tyr Tyr Pro Gly Pro Pro  
 20 25 30  
 Asn Ser Gly Gly Gln Tyr Gly Ser Gly Leu Pro Pro Gly Gly Gly  
 35 40 45  
 Tyr Gly Gly Pro Ala Pro Gly Gly Pro Tyr Gly Pro Pro Ala Gly  
 50 55 60  
 Gly Gly Pro Tyr Gly His Pro Asn Pro Gly Met Phe Pro Ser Gly  
 65 70 75  
 Thr Pro Gly Gly Pro Tyr Gly Gly Ala Ala Pro Gly Gly Pro Tyr  
 80 85 90  
 Gly Gln Pro Pro Pro Ser Ser Tyr Gly Ala Gln Gln Pro Gly Leu  
 95 100 105  
 Tyr Gly Gln Gly Gly Ala Pro Pro Asn Val Asp Pro Glu Ala Tyr  
 110 115 120  
 Ser Trp Phe Gln Ser Val Asp Ser Asp His Ser Gly Tyr Ile Ser  
 125 130 135  
 Met Lys Glu Leu Lys Gln Ala Leu Val Asn Cys Asn Trp Ser Ser  
 140 145 150  
 Phe Asn Asp Glu Thr Cys Leu Met Met Ile Asn Met Phe Asp Lys  
 155 160 165

Thr	Lys	Ser	Gly	Arg	Ile	Asp	Val	Tyr	Gly	Phe	Ser	Ala	Leu	Trp
				170					175					180
Lys	Phe	Ile	Gln	Gln	Trp	Lys	Asn	Leu	Phe	Gln	Gln	Tyr	Asp	Arg
				185					190					195
Asp	Arg	Ser	Gly	Ser	Ile	Ser	Tyr	Thr	Glu	Leu	Gln	Gln	Ala	Leu
				200					205					210
Ser	Gln	Met	Gly	Tyr	Asn	Leu	Ser	Pro	Gln	Phe	Thr	Gln	Leu	Leu
				215					220					225
Val	Ser	Arg	Tyr	Cys	Pro	Arg	Ser	Ala	Asn	Pro	Ala	Met	Gln	Leu
				230					235					240
Asp	Arg	Phe	Ile	Gln	Val	Cys	Thr	Gln	Leu	Gln	Val	Leu	Thr	Glu
				245					250					255
Ala	Phe	Arg	Glu	Lys	Asp	Thr	Ala	Val	Gln	Gly	Asn	Ile	Arg	Leu
				260					265					270
Ser	Phe	Glu	Asp	Phe	Val	Thr	Met	Thr	Ala	Ser	Arg	Met	Leu	
				275					280					

<210> 63  
 <211> 1234  
 <212> DNA  
 <213> Homo Sapien

<400> 63  
 caggatgcag ggccgcgtgg cagggagctg cgctcctctg ggcttgcctcc 50  
 tggctctgtct tcatctccca ggctcttttg cccggagcat cgggtgttgtg 100  
 gaggagaaag tttcccaaaa cttcgggacc aacttgcttc agctcggaca 150  
 accttctctcc actggccct ctaactctga acatccgcag cccgctctgg 200  
 accctaggtc taatgacttg gcaagggttc ctctgaagct cagcgtgcct 250  
 ccatcagatg gcttcccacc tgcaggaggt tctgcagtgc agaggtggcc 300  
 tccatcgtgg gggctgcctg ccatggattc ctggccccct gaggatcctt 350  
 ggcagatgat ggctgctgcg gctgaggacc gcctggggga agcgctgcct 400  
 gaagaactct cttacctctc cagtgtctgcg gcctcgcctc cgggcagtgg 450  
 ccctttgcct ggggagtctt ctcccgatgc cacaggcctc tcacctgagg 500  
 cttcactcct ccaccaggac tcggagtcca gacgactgcc ccgttctaata 550  
 tcaactggag ccgggggaaa aatcctttcc caacgccctc cctgggtctct 600  
 catccacagg gttctgcctg atcacccttg gggtagcctg aatcccagtg 650  
 tgtcctgggg aggtggaggc cctgggactg gttggggaac gaggcccatg 700

ccacaccctg aggggaatctg ggggtatcaat aatcaacccc caggtaccag 750  
ctgggggaat attaatcggg atccaggagg cagctgggga aatattaatc 800  
gggtatccagg aggcagctgg gggaatatta atcgggtatcc aggaggcagc 850  
tgggggaata ttcattctata cccaggtatc aataacccat ttcctcctgg 900  
agttctccgc cctcctgggt cttcttgga catcccagct ggcttcccta 950  
atcctccaag ccctaggttg cagtggggct agagcacgat agagggaaac 1000  
ccaacattgg gagttagagt cctgctcccg ccccttgctg tgtgggctca 1050  
atccaggccc tgtaacatg tttccagcac tatccccact tttcagtgcc 1100  
tccccctgctc atctccaata aaataaaagc acttatgaaa aaaaaaaaaa 1150  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1234

<210> 64  
<211> 325  
<212> PRT  
<213> Homo Sapien

<400> 64  
Met Gln Gly Arg Val Ala Gly Ser Cys Ala Pro Leu Gly Leu Leu  
1 5 10 15  
Leu Val Cys Leu His Leu Pro Gly Leu Phe Ala Arg Ser Ile Gly  
20 25 30  
Val Val Glu Glu Lys Val Ser Gln Asn Phe Gly Thr Asn Leu Pro  
35 40 45  
Gln Leu Gly Gln Pro Ser Ser Thr Gly Pro Ser Asn Ser Glu His  
50 55 60  
Pro Gln Pro Ala Leu Asp Pro Arg Ser Asn Asp Leu Ala Arg Val  
65 70 75  
Pro Leu Lys Leu Ser Val Pro Pro Ser Asp Gly Phe Pro Pro Ala  
80 85 90  
Gly Gly Ser Ala Val Gln Arg Trp Pro Pro Ser Trp Gly Leu Pro  
95 100 105  
Ala Met Asp Ser Trp Pro Pro Glu Asp Pro Trp Gln Met Met Ala  
110 115 120  
Ala Ala Ala Glu Asp Arg Leu Gly Glu Ala Leu Pro Glu Glu Leu  
125 130 135  
Ser Tyr Leu Ser Ser Ala Ala Ala Leu Ala Pro Gly Ser Gly Pro  
140 145 150

Leu	Pro	Gly	Glu	Ser	Ser	Pro	Asp	Ala	Thr	Gly	Leu	Ser	Pro	Glu	155	160	165
Ala	Ser	Leu	Leu	His	Gln	Asp	Ser	Glu	Ser	Arg	Arg	Leu	Pro	Arg	170	175	180
Ser	Asn	Ser	Leu	Gly	Ala	Gly	Gly	Lys	Ile	Leu	Ser	Gln	Arg	Pro	185	190	195
Pro	Trp	Ser	Leu	Ile	His	Arg	Val	Leu	Pro	Asp	His	Pro	Trp	Gly	200	205	210
Thr	Leu	Asn	Pro	Ser	Val	Ser	Trp	Gly	Gly	Gly	Gly	Pro	Gly	Thr	215	220	225
Gly	Trp	Gly	Thr	Arg	Pro	Met	Pro	His	Pro	Glu	Gly	Ile	Trp	Gly	230	235	240
Ile	Asn	Asn	Gln	Pro	Pro	Gly	Thr	Ser	Trp	Gly	Asn	Ile	Asn	Arg	245	250	255
Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	260	265	270
Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	275	280	285
Ile	His	Leu	Tyr	Pro	Gly	Ile	Asn	Asn	Pro	Phe	Pro	Pro	Gly	Val	290	295	300
Leu	Arg	Pro	Pro	Gly	Ser	Ser	Trp	Asn	Ile	Pro	Ala	Gly	Phe	Pro	305	310	315
Asn	Pro	Pro	Ser	Pro	Arg	Leu	Gln	Trp	Gly						320	325	

<210> 65

<211> 422

<212> DNA

<213> Homo Sapien

<400> 65

```

aaggagaggc caccgggact tcagtgtctc ctccatccca ggagcgcagt 50
ggccactatg gggctctgggc tgccccttgt cctcctcttg accctccttg 100
gcagctcaca tggaacaggg ccgggtatga ct'ttgcaact gaagctgaag 150
gagtcttttc tgacaaattc ctccatgag tccagcttcc tggaattgct 200
tgaaaagctc tgctctctcc tccatctccc ttcagggacc agcgtcaccc 250
tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300
ttgaagcctg tgtccttctt ggcccgggct tttgggccgg ggatgcagga 350
ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400

```

ataaataaaa ttcggtatgc tg 422

<210> 66

<211> 78

<212> PRT

<213> Homo Sapien

<400> 66

Met	Gly	Ser	Gly	Leu	Pro	Leu	Val	Leu	Leu	Leu	Thr	Leu	Leu	Gly
1				5				10						15

Ser	Ser	His	Gly	Thr	Gly	Pro	Gly	Met	Thr	Leu	Gln	Leu	Lys	Leu
			20					25						30

Lys	Glu	Ser	Phe	Leu	Thr	Asn	Ser	Ser	Tyr	Glu	Ser	Ser	Phe	Leu
			35					40						45

Glu	Leu	Leu	Glu	Lys	Leu	Cys	Leu	Leu	Leu	His	Leu	Pro	Ser	Gly
			50					55						60

Thr	Ser	Val	Thr	Leu	His	His	Ala	Arg	Ser	Gln	His	His	Val	Val
			65					70						75

Cys Asn Thr

<210> 67

<211> 744

<212> DNA

<213> Homo Sapien

<400> 67

acggaccgag gggttcgaggg agggacacgg accaggaacc tgagctaggt 50

caaagacgcc cgggccaggt gccccgtcgc aggtgccctt ggccggagat 100

gcggtaggag gggcgagcgc gagaagcccc ttctcggcg ctgccaaccc 150

gccaccagc ccatggcgaa cccggggtg gggctgcttc tggcgctggg 200

cctgccgttc ctgctggccc gctggggccg agcctggggg caaatacaga 250

ccacttctgc aaatgagaat agcactgttt tgccttcac caccagctcc 300

agctccgatg gcaacctgcg tccggaagcc atcactgcta tcatcgtagt 350

cttctccctc ttggctgctt tgetcctggc tgtggggctg gcaactgttg 400

tgcggaagct tcgggagaag cggcagacgg agggcaccta ccggcccagt 450

agcgaggagc agttctccca tgcagccgag gcccgggccc ctcaggactc 500

caaggagacg gtgcagggtt gcctgcccac ctaggtcccc tctcctgcat 550

ctgtctccct tcattgctgt gtgaccttgg ggaaaggcag tgccctctct 600

gggcagtcag atccaccag tgcttaatag cagggaagaa ggtacttcaa 650

agactctgcc cctgaggtca agagaggatg gggctattca cttttatata 700

tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 68

<211> 123

<212> PRT

<213> Homo Sapien

<400> 68

Met	Ala	Asn	Pro	Gly	Leu	Gly	Leu	Leu	Leu	Ala	Leu	Gly	Leu	Pro
1				5					10					15

Phe	Leu	Leu	Ala	Arg	Trp	Gly	Arg	Ala	Trp	Gly	Gln	Ile	Gln	Thr
				20					25					30

Thr	Ser	Ala	Asn	Glu	Asn	Ser	Thr	Val	Leu	Pro	Ser	Ser	Thr	Ser
				35					40					45

Ser	Ser	Ser	Asp	Gly	Asn	Leu	Arg	Pro	Glu	Ala	Ile	Thr	Ala	Ile
				50					55					60

Ile	Val	Val	Phe	Ser	Leu	Leu	Ala	Ala	Leu	Leu	Leu	Ala	Val	Gly
				65					70					75

Leu	Ala	Leu	Leu	Val	Arg	Lys	Leu	Arg	Glu	Lys	Arg	Gln	Thr	Glu
				80					85					90

Gly	Thr	Tyr	Arg	Pro	Ser	Ser	Glu	Glu	Gln	Phe	Ser	His	Ala	Ala
				95					100					105

Glu	Ala	Arg	Ala	Pro	Gln	Asp	Ser	Lys	Glu	Thr	Val	Gln	Gly	Cys
				110					115					120

Leu Pro Ile

<210> 69

<211> 3265

<212> DNA

<213> Homo Sapien

<400> 69

gccaggaata actagagagg aacaatgggg ttattcagag gttttgtttt 50  
cctcttagtt ctgtgcctgc tgcaccagtc aaatacttcc ttcattaagc 100

tgaataataa tggctttgaa gatattgtca ttgttataga tcctagtgtg 150

ccagaagatg aaaaaataat tgaacaaata gaggatatgg tgactacagc 200

ttctacgtac ctgtttgaag ccacagaaaa aagatttttt ttcaaaaatg 250

tatctatatt aattcctgag aattggaagg aaaatcctca gtacaaaagg 300

cctaaacatg aaaaccataa acatgctgat gttatagttg caccacctac 350



actcccaggt agagatgaac catacaccaa gcagttcaca gaatgtggag 400  
 agaaaggcga atacattcac ttcacccctg accttctact tggaaaaaaa 450  
 caaaatgaat atggaccacc aggcaaactg tttgtccatg agtgggctca 500  
 cctccggtgg ggagtgtttg atgagtacaa tgaagatcag cctttctacc 550  
 gtgctaagtc aaaaaaaatc gaagcaacaa ggtgttccgc aggtatctct 600  
 ggtagaaata gaggtttataa gtgtcaagga ggcagctgtc ttagtagagc 650  
 atgcagaatt gattctacaa caaaactgta tggaaaagat tgtcaattct 700  
 ttcctgataa agtacaacaa gaaaaagcat ccataatgtt tatgcaaagt 750  
 attgattctg ttgttgaatt ttgtaacgaa aaaaccata atcaagaagc 800  
 tccaagccta caaaacataa agtgcaattt tagaagtaca tgggaggtga 850  
 ttagcaattc tgaggatttt aaaaacacca taccatggg gacaccacct 900  
 cctccacctg tcttctcatt gctgaagatc agtcaaagaa ttgtgtgctt 950  
 agttcttgat aagtctggaa gcatgggggg taaggaccgc ctaaactgaa 1000  
 tgaatcaagc agcaaaacat ttcctgctgc agactgttga aaatggatcc 1050  
 tgggtgggga tgggttcactt tgatagtact gccactattg taaataagct 1100  
 aatccaaata aaaagcagtg atgaaagaaa cacactcatg gcaggattac 1150  
 ctacatatcc tctgggagga acttccatct gctctggaat taaatatgca 1200  
 tttcaggtga ttggagagct acattcccaa ctcgatggat ccgaagtact 1250  
 gctgctgact gatggggagg ataacactgc aagttcttgt attgatgaag 1300  
 tgaaacaaag tggggccatt gttcatttta ttgctttggg aagagctgct 1350  
 gatgaagcag taatagagat gagcaagata acaggaggaa gtcattttta 1400  
 tgtttcagat gaagctcaga acaatggcct cattgatgct tttggggctc 1450  
 ttacatcagg aaatactgat ctctcccaga agtcccttca gctcgaaagt 1500  
 aagggattaa cactgaatag taatgcctgg atgaacgaca ctgtcataat 1550  
 tgatagtaca gtgggaaagg acacgttctt tctcatcaca tggaacagtc 1600  
 tgctccag tatttctctc tgggatccca gtggaacaat aatggaaaat 1650  
 ttcacagtg atgcaacttc caaaatggcc tatctcagta ttccaggaaac 1700  
 tgcaaagggtg ggcacttggg catacaatct tcaagccaaa gcgaaccag 1750  
 aaacattaac tattacagta acttctcgag cagcaaattc ttctgtgcct 1800

ccaatcacag tgaatgctaa aatgaataag gacgtaaaca gtttccccag 1850  
 cccaatgatt gtttacgcag aaattctaca aggatatgta cctgttcttg 1900  
 gagccaatgt gactgctttc attgaatcac agaatggaca tacagaagtt 1950  
 ttggaacttt tggataatgg tgcaggcgct gattctttca agaatgatgg 2000  
 agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050  
 taaaagtctg ggctcatgga ggagcaaaca ctgccaggct aaaattacgg 2100  
 cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150  
 aattgaagca aaccgcgcaa gacctgaaat tgatgaggat actcagacca 2200  
 ccttgaggga tttcagccga acagcatccg gaggtgcatt tgtggtatca 2250  
 caagtcccaa gccttccctt gcctgaccaa taccaccaa gtcaaatac 2300  
 agaccttgat gccacagttc atgaggataa gattattctt acatggacag 2350  
 caccaggaga taattttgat gttggaaaag ttcaacgtta tatcataaga 2400  
 ataagtgcaa gtattcttga tctaagagac agttttgatg atgctcttca 2450  
 agtaaatact actgatctgt caccaaagga ggccaactcc aaggaaagct 2500  
 ttgcatttaa accagaaaat atctcagaag aaaatgcaac ccacatattt 2550  
 attgccatta aaagtataga taaaagcaat ttgacatcaa aagtatccaa 2600  
 cattgcacaa gtaactttgt ttatccctca agcaaatacct gatgacattg 2650  
 atcctacacc tactcctact cctactccta ctctgataa aagtcataat 2700  
 tctggagtta atatttctac gctgggtattg tctgtgattg ggtctgttgt 2750  
 aattgttaac tttattttta gtaccaccat ttgaacctta acgaagaaaa 2800  
 aaatcttcaa gtagacctag aagagagttt taaaaaaca aacaatgtaa 2850  
 gtaaaggata tttctgaatc ttaaaattca tcccatgtgt gatcataaac 2900  
 tcataaaaat aattttaaga tgtcggaaaa ggatactttg attaaataaa 2950  
 aacactcatg gatatgtaaa aactgtcaag attaaaattt aatagtttca 3000  
 tttatttggt attttatttg taagaaatag tgatgaacaa agatcctttt 3050  
 tcatactgat acctggttgt atattatttg atgcaacagt tttctgaaat 3100  
 gatatttcaa attgcatcaa gaaattaaaa tcattctatct gagtagtcaa 3150  
 aatacaagta aaggagagca aataaacaac atttggaaaa aaaaaaaaaa 3200

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3250

aaaaaaaaaa aaaaa 3265

<210> 70

<211> 919

<212> PRT

<213> Homo Sapien

<400> 70

Met	Gly	Leu	Phe	Arg	Gly	Phe	Val	Phe	Leu	Leu	Val	Leu	Cys	Leu
1				5					10					15

Leu	His	Gln	Ser	Asn	Thr	Ser	Phe	Ile	Lys	Leu	Asn	Asn	Asn	Gly
				20					25					30

Phe	Glu	Asp	Ile	Val	Ile	Val	Ile	Asp	Pro	Ser	Val	Pro	Glu	Asp
				35					40					45

Glu	Lys	Ile	Ile	Glu	Gln	Ile	Glu	Asp	Met	Val	Thr	Thr	Ala	Ser
				50					55					60

Thr	Tyr	Leu	Phe	Glu	Ala	Thr	Glu	Lys	Arg	Phe	Phe	Phe	Lys	Asn
				65					70					75

Val	Ser	Ile	Leu	Ile	Pro	Glu	Asn	Trp	Lys	Glu	Asn	Pro	Gln	Tyr
				80					85					90

Lys	Arg	Pro	Lys	His	Glu	Asn	His	Lys	His	Ala	Asp	Val	Ile	Val
				95					100					105

Ala	Pro	Pro	Thr	Leu	Pro	Gly	Arg	Asp	Glu	Pro	Tyr	Thr	Lys	Gln
				110					115					120

Phe	Thr	Glu	Cys	Gly	Glu	Lys	Gly	Glu	Tyr	Ile	His	Phe	Thr	Pro
				125					130					135

Asp	Leu	Leu	Leu	Gly	Lys	Lys	Gln	Asn	Glu	Tyr	Gly	Pro	Pro	Gly
				140					145					150

Lys	Leu	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe
				155					160					165

Asp	Glu	Tyr	Asn	Glu	Asp	Gln	Pro	Phe	Tyr	Arg	Ala	Lys	Ser	Lys
				170					175					180

Lys	Ile	Glu	Ala	Thr	Arg	Cys	Ser	Ala	Gly	Ile	Ser	Gly	Arg	Asn
				185					190					195

Arg	Val	Tyr	Lys	Cys	Gln	Gly	Gly	Ser	Cys	Leu	Ser	Arg	Ala	Cys
				200					205					210

Arg	Ile	Asp	Ser	Thr	Thr	Lys	Leu	Tyr	Gly	Lys	Asp	Cys	Gln	Phe
				215					220					225

Phe	Pro	Asp	Lys	Val	Gln	Thr	Glu	Lys	Ala	Ser	Ile	Met	Phe	Met
				230					235					240

Gln Ser Ile Asp	Ser Val Val Glu Phe	Cys Asn Glu Lys Thr His
245	250	255
Asn Gln Glu Ala	Pro Ser Leu Gln Asn	Ile Lys Cys Asn Phe Arg
260	265	270
Ser Thr Trp Glu	Val Ile Ser Asn Ser	Glu Asp Phe Lys Asn Thr
275	280	285
Ile Pro Met Val	Thr Pro Pro Pro Pro	Pro Val Phe Ser Leu Leu
290	295	300
Lys Ile Ser Gln	Arg Ile Val Cys Leu	Val Leu Asp Lys Ser Gly
305	310	315
Ser Met Gly Gly	Lys Asp Arg Leu Asn	Arg Met Asn Gln Ala Ala
320	325	330
Lys His Phe Leu	Leu Gln Thr Val Glu	Asn Gly Ser Trp Val Gly
335	340	345
Met Val His Phe	Asp Ser Thr Ala Thr	Ile Val Asn Lys Leu Ile
350	355	360
Gln Ile Lys Ser	Ser Asp Glu Arg Asn	Thr Leu Met Ala Gly Leu
365	370	375
Pro Thr Tyr Pro	Leu Gly Gly Thr Ser	Ile Cys Ser Gly Ile Lys
380	385	390
Tyr Ala Phe Gln	Val Ile Gly Glu Leu	His Ser Gln Leu Asp Gly
395	400	405
Ser Glu Val Leu	Leu Leu Thr Asp Gly	Glu Asp Asn Thr Ala Ser
410	415	420
Ser Cys Ile Asp	Glu Val Lys Gln Ser	Gly Ala Ile Val His Phe
425	430	435
Ile Ala Leu Gly	Arg Ala Ala Asp Glu	Ala Val Ile Glu Met Ser
440	445	450
Lys Ile Thr Gly	Gly Ser His Phe Tyr	Val Ser Asp Glu Ala Gln
455	460	465
Asn Asn Gly Leu	Ile Asp Ala Phe Gly	Ala Leu Thr Ser Gly Asn
470	475	480
Thr Asp Leu Ser	Gln Lys Ser Leu Gln	Leu Glu Ser Lys Gly Leu
485	490	495
Thr Leu Asn Ser	Asn Ala Trp Met Asn	Asp Thr Val Ile Ile Asp
500	505	510
Ser Thr Val Gly	Lys Asp Thr Phe Phe	Leu Ile Thr Trp Asn Ser
515	520	525

Leu Pro Pro Ser	Ile Ser Leu Trp Asp	Pro Ser Gly Thr Ile Met
530	535	540
Glu Asn Phe Thr	Val Asp Ala Thr Ser	Lys Met Ala Tyr Leu Ser
545	550	555
Ile Pro Gly Thr	Ala Lys Val Gly Thr	Trp Ala Tyr Asn Leu Gln
560	565	570
Ala Lys Ala Asn	Pro Glu Thr Leu Thr	Ile Thr Val Thr Ser Arg
575	580	585
Ala Ala Asn Ser	Ser Val Pro Pro Ile	Thr Val Asn Ala Lys Met
590	595	600
Asn Lys Asp Val	Asn Ser Phe Pro Ser	Pro Met Ile Val Tyr Ala
605	610	615
Glu Ile Leu Gln	Gly Tyr Val Pro Val	Leu Gly Ala Asn Val Thr
620	625	630
Ala Phe Ile Glu	Ser Gln Asn Gly His	Thr Glu Val Leu Glu Leu
635	640	645
Leu Asp Asn Gly	Ala Gly Ala Asp Ser	Phe Lys Asn Asp Gly Val
650	655	660
Tyr Ser Arg Tyr	Phe Thr Ala Tyr Thr	Glu Asn Gly Arg Tyr Ser
665	670	675
Leu Lys Val Arg	Ala His Gly Gly Ala	Asn Thr Ala Arg Leu Lys
680	685	690
Leu Arg Pro Pro	Leu Asn Arg Ala Ala	Tyr Ile Pro Gly Trp Val
695	700	705
Val Asn Gly Glu	Ile Glu Ala Asn Pro	Pro Arg Pro Glu Ile Asp
710	715	720
Glu Asp Thr Gln	Thr Thr Leu Glu Asp	Phe Ser Arg Thr Ala Ser
725	730	735
Gly Gly Ala Phe	Val Val Ser Gln Val	Pro Ser Leu Pro Leu Pro
740	745	750
Asp Gln Tyr Pro	Pro Ser Gln Ile Thr	Asp Leu Asp Ala Thr Val
755	760	765
His Glu Asp Lys	Ile Ile Leu Thr Trp	Thr Ala Pro Gly Asp Asn
770	775	780
Phe Asp Val Gly	Lys Val Gln Arg Tyr	Ile Ile Arg Ile Ser Ala
785	790	795
Ser Ile Leu Asp	Leu Arg Asp Ser Phe	Asp Asp Ala Leu Gln Val
800	805	810

Asn	Thr	Thr	Asp	Leu	Ser	Pro	Lys	Glu	Ala	Asn	Ser	Lys	Glu	Ser	815	820	825
Phe	Ala	Phe	Lys	Pro	Glu	Asn	Ile	Ser	Glu	Glu	Asn	Ala	Thr	His	830	835	840
Ile	Phe	Ile	Ala	Ile	Lys	Ser	Ile	Asp	Lys	Ser	Asn	Leu	Thr	Ser	845	850	855
Lys	Val	Ser	Asn	Ile	Ala	Gln	Val	Thr	Leu	Phe	Ile	Pro	Gln	Ala	860	865	870
Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	875	880	885
Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser	Thr	Leu	890	895	900
Val	Leu	Ser	Val	Ile	Gly	Ser	Val	Val	Ile	Val	Asn	Phe	Ile	Leu	905	910	915

Ser Thr Thr Ile

<210> 71  
 <211> 3877  
 <212> DNA  
 <213> Homo Sapien

<400> 71  
 ctccttaggt ggaaaccctg ggagtagagt actgacagca aagaccggga 50  
 aagaccatac gtccccgggc aggggtgaca acaggtgtca tctttttgat 100  
 ctcgtgtgtg gctgccttcc tatttcaagg aaagacgcca aggtaatttt 150  
 gaccagagg agcaatgatg tagccacctc ctaaccttcc cttcttgaac 200  
 cccagttat gccaggattt actagagagt gtcaactcaa ccagcaagcg 250  
 gctccttcgg cttaacttgt ggttgaggga gagaaccttt gtggggctgc 300  
 gttctcttag cagtgtcag aagtgacttg cctgagggtg gaccagaaga 350  
 aaggaaaggt cccctcttgc tgttggtgc acatcaggaa ggctgtgatg 400  
 ggaatgaagg tgaaaacttg gagatttcac ttcagtcatt gcttctgcct 450  
 gcaagatcat cttttaaaag tagagaagct gctctgtgtg gtggttaact 500  
 ccaagaggca gaactcgttc tagaaggaaa tggatgcaag cagctccggg 550  
 ggcccaaac gcatgcttcc tgtggtctag cccagggaag cccttccgtg 600  
 ggggccccgg ctttgaggga tgccaccggt tctggacgca tggctgattc 650  
 ctgaatgatg atggttcgcc gggggctgct tgcgtggatt tcccgggtgg 700

tggtttttgct ggtgctcctc tgctgtgcta tctctgtcct gtacatgttg 750  
 gcctgcaccc caaaagggtga cgaggagcag ctggcactgc ccagggccaa 800  
 cagccccacg gggaaggagg ggtaccaggc cgtccttcag gagtgggagg 850  
 agcagcaccg caactacgtg agcagcctga agcggcagat cgcacagctc 900  
 aaggaggagc tgcaggagag gagtgcagcag ctcaggaatg ggcagtacca 950  
 agccagcgat gctgctggcc tgggtctgga caggagcccc ccagagaaaa 1000  
 cccaggccga cctcctggcc ttcctgcact cgcagggtgga caaggcagag 1050  
 gtgaatgctg gcgtcaagct ggccacagag tatgcagcag tgcctttcga 1100  
 tagctttact ctacagaagg tgtaccagct ggagactggc cttaccgcgc 1150  
 accccgagga gaagcctgtg aggaaggaca agcgggatga gttggtggaa 1200  
 gccattgaat cagccttgga gaccctgaac aatcctgcag agaacagccc 1250  
 caatcacctg ccttacacgg cctctgattt catagaaggg atctaccgaa 1300  
 cagaaaggga caaagggaca ttgtatgagc tcaccttcaa aggggaccac 1350  
 aaacacgaat tcaaacggct catcttattt cgaccattca gccccatcat 1400  
 gaaagtgaat aatgaaaagc tcaacatggc caacacgctt atcaatgtta 1450  
 tcgtgcctct agcaaaaagg gtggacaagt tccggcagtt catgcagaat 1500  
 ttcagggaga tgtgcattga gcaggatggg agagtccatc tcaactgttg 1550  
 ttactttggg aaagaagaaa taaatgaagt caaaggaata cttgaaaaca 1600  
 cttccaaagc tgccaacttc aggaacttta cttcatcca gctgaatgga 1650  
 gaattttctc ggggaaaggg acttgatgtt ggagcccgtc tctggaaggg 1700  
 aagcaacgtc cttctctttt tctgtgatgt ggacatctac ttcacatctg 1750  
 aattcctcaa tacgtgtagg ctgaatacac agccaggga gaaggtattt 1800  
 tatccagttc ttttcagtca gtacaatcct ggcataatat acggccacca 1850  
 tgatgcagtc cctcccttgg aacagcagct ggtcataaag aaggaaactg 1900  
 gattttggag agactttgga tttgggatga cgtgtcagta tcggtcagac 1950  
 ttcacatcaata taggtgggtt tgatctggac atcaaaggct ggggaggaga 2000  
 ggatgtgcac ctttatcgca agtatctcca cagcaacctc atagtggtag 2050  
 ggacgcctgt gcgaggactc ttccacctct ggcagagaaa gcgctgcatg 2100  
 gacgagctga cccccgagca gtacaagatg tgcagtcagt ccaaggccat 2150

gaacgaggca tcccacggcc agctgggcat gctgggtgttc aggcacgaga 2200  
 tagagggtca ccttcgcaaa cagaaacaga agacaagtag caaaaaaaca 2250  
 tgaactccca gagaaggatt gtgggagaca ctttttcttt ccttttgcaa 2300  
 ttactgaaag tggctgcaac agagaaaaga cttccataaa ggacgacaaa 2350  
 agaattggac tgatgggtca gagatgagaa agcctccgat ttctctctgt 2400  
 tgggcttttt acaacagaaa tcaaaatctc cgctttgcct gcaaaagtaa 2450  
 cccagttgca ccctgtgaag tgtctgacaa aggcagaatg cttgtgagat 2500  
 tataagccta atgggtgtgga ggttttgatg gtgtttacaa tacactgaga 2550  
 cctgttgttt tgtgtgtctca ttgaaatatt catgatttaa gagcagtttt 2600  
 gtaaaaaatt cattagcatg aaaggcaagc atattttctcc tcatatgaat 2650  
 gagcctatca gcagggctct agtttctagg aatgctaaaa tatcagaagg 2700  
 caggagagga gataggctta ttatgatact agtgagtaca ttaagtaaaa 2750  
 taaaatggac cagaaaagaa aagaaacat aaatatcgtg tcatattttc 2800  
 cccaagatta accaaaaata atctgcttat ctttttggtt gtccttttaa 2850  
 ctgtctccgt ttttttcttt tatttaaaaa tgcacttttt ttcccttggtg 2900  
 agttatagtc tgcttattta attaccactt tgcaagcctt acaagagagc 2950  
 acaagttggc ctacattttt atatttttta agaagatact ttgagatgca 3000  
 ttatgagaac tttcagttca aagcatcaaa ttgatgccat atccaaggac 3050  
 atgccaaatg ctgattctgt caggcactga atgtcaggca ttgagacata 3100  
 gggaaggaat ggtttgact aatacagacg tacagatact ttctctgaag 3150  
 agtattttcg aagaggagca actgaacact ggaggaaaag aaaatgacac 3200  
 tttctgcttt acagaaaagg aaactcatte agactggtga tatcgtgatg 3250  
 tacctaaaag tcagaaacca cattttctcc tcagaagtag ggaccgcttt 3300  
 cttacctgtt taaataaacc aaagtatacc gtgtgaacca aacaatctct 3350  
 tttcaaaaca gggtgctcct cctggcttct ggcttcata agaagaaatg 3400  
 gagaaaaata tatatatata tatatatatt gtgaaagatc aatccatctg 3450  
 ccagaatcta gtgggatgga agtttttgct acatgttatc caccacaggc 3500  
 caggtggaag taactgaatt attttttaaa ttaagcagtt ctactcaatc 3550



accaagatgc ttctgaaaat tgcattttat taccatttca aactattttt 3600  
 taaaaataaa tacagttaac atagagtggg ttcttcattc atgtgaaaat 3650  
 tattagccag caccagatgc atgagctaata tatctctttg agtccttgct 3700  
 tctgtttgct cacagtaaac tcattgttta aaagcttcaa gaacattcaa 3750  
 gctgttggtg tggttaaaaaa tgcattgtat tgatttgtac tggtagttta 3800  
 tgaaatttaa ttaaaacaca ggccatgaat ggaaggtggg attgcacagc 3850  
 taataaaata tgatttgtgg atatgaa 3877

<210> 72

<211> 532

<212> PRT

<213> Homo Sapien

<400> 72

Met	Met	Met	Val	Arg	Arg	Gly	Leu	Leu	Ala	Trp	Ile	Ser	Arg	Val	1	5	10	15
Val	Val	Leu	Leu	Val	Leu	Leu	Cys	Cys	Ala	Ile	Ser	Val	Leu	Tyr	20	25	30	
Met	Leu	Ala	Cys	Thr	Pro	Lys	Gly	Asp	Glu	Glu	Gln	Leu	Ala	Leu	35	40	45	
Pro	Arg	Ala	Asn	Ser	Pro	Thr	Gly	Lys	Glu	Gly	Tyr	Gln	Ala	Val	50	55	60	
Leu	Gln	Glu	Trp	Glu	Glu	Gln	His	Arg	Asn	Tyr	Val	Ser	Ser	Leu	65	70	75	
Lys	Arg	Gln	Ile	Ala	Gln	Leu	Lys	Glu	Glu	Leu	Gln	Glu	Arg	Ser	80	85	90	
Glu	Gln	Leu	Arg	Asn	Gly	Gln	Tyr	Gln	Ala	Ser	Asp	Ala	Ala	Gly	95	100	105	
Leu	Gly	Leu	Asp	Arg	Ser	Pro	Pro	Glu	Lys	Thr	Gln	Ala	Asp	Leu	110	115	120	
Leu	Ala	Phe	Leu	His	Ser	Gln	Val	Asp	Lys	Ala	Glu	Val	Asn	Ala	125	130	135	
Gly	Val	Lys	Leu	Ala	Thr	Glu	Tyr	Ala	Ala	Val	Pro	Phe	Asp	Ser	140	145	150	
Phe	Thr	Leu	Gln	Lys	Val	Tyr	Gln	Leu	Glu	Thr	Gly	Leu	Thr	Arg	155	160	165	
His	Pro	Glu	Glu	Lys	Pro	Val	Arg	Lys	Asp	Lys	Arg	Asp	Glu	Leu	170	175	180	
Val	Glu	Ala	Ile	Glu	Ser	Ala	Leu	Glu	Thr	Leu	Asn	Asn	Pro	Ala				

	185		190		195
Glu Asn Ser Pro	Asn His Arg Pro Tyr	Thr Ala Ser Asp Phe	Ile		
	200	205	210		
Glu Gly Ile Tyr	Arg Thr Glu Arg Asp	Lys Gly Thr Leu Tyr	Glu		
	215	220	225		
Leu Thr Phe Lys	Gly Asp His Lys His	Glu Phe Lys Arg Leu	Ile		
	230	235	240		
Leu Phe Arg Pro	Phe Ser Pro Ile Met	Lys Val Lys Asn Glu	Lys		
	245	250	255		
Leu Asn Met Ala	Asn Thr Leu Ile Asn	Val Ile Val Pro Leu	Ala		
	260	265	270		
Lys Arg Val Asp	Lys Phe Arg Gln Phe	Met Gln Asn Phe Arg	Glu		
	275	280	285		
Met Cys Ile Glu	Gln Asp Gly Arg Val	His Leu Thr Val Val	Tyr		
	290	295	300		
Phe Gly Lys Glu	Glu Ile Asn Glu Val	Lys Gly Ile Leu Glu	Asn		
	305	310	315		
Thr Ser Lys Ala	Ala Asn Phe Arg Asn	Phe Thr Phe Ile Gln	Leu		
	320	325	330		
Asn Gly Glu Phe	Ser Arg Gly Lys Gly	Leu Asp Val Gly Ala	Arg		
	335	340	345		
Phe Trp Lys Gly	Ser Asn Val Leu Leu	Phe Phe Cys Asp Val	Asp		
	350	355	360		
Ile Tyr Phe Thr	Ser Glu Phe Leu Asn	Thr Cys Arg Leu Asn	Thr		
	365	370	375		
Gln Pro Gly Lys	Lys Val Phe Tyr Pro	Val Leu Phe Ser Gln	Tyr		
	380	385	390		
Asn Pro Gly Ile	Ile Tyr Gly His His	Asp Ala Val Pro Pro	Leu		
	395	400	405		
Glu Gln Gln Leu	Val Ile Lys Lys Glu	Thr Gly Phe Trp Arg	Asp		
	410	415	420		
Phe Gly Phe Gly	Met Thr Cys Gln Tyr	Arg Ser Asp Phe Ile	Asn		
	425	430	435		
Ile Gly Gly Phe	Asp Leu Asp Ile Lys	Gly Trp Gly Gly Glu	Asp		
	440	445	450		
Val His Leu Tyr	Arg Lys Tyr Leu His	Ser Asn Leu Ile Val	Val		
	455	460	465		
Arg Thr Pro Val	Arg Gly Leu Phe His	Leu Trp His Glu Lys	Arg		

	470		475		480
Cys Met Asp Glu Leu Thr Pro Glu Gln Tyr Lys Met Cys Met Gln					
	485		490		495
Ser Lys Ala Met Asn Glu Ala Ser His Gly Gln Leu Gly Met Leu					
	500		505		510
Val Phe Arg His Glu Ile Glu Ala His Leu Arg Lys Gln Lys Gln					
	515		520		525
Lys Thr Ser Ser Lys Lys Thr					
	530				

<210> 73  
 <211> 1701  
 <212> DNA  
 <213> Homo Sapien  
 <220>  
 <221> unsure  
 <222> 1528  
 <223> unknown base

<400> 73  
 gagactgcag agggagataa agagagaggg caaagaggca gcaagagatt 50  
 tgtcctgggg atccagaaac ccatgatacc ctactgaaca ccgaatcccc 100  
 tggaagccca cagagacaga gacagcaaga gaagcagaga taaatacact 150  
 cacgccagga gctcgctcgc tctctctctc tctctctcac tctctcctcc 200  
 ctctctctct gctgtccta gtctcttagt cctcaaattc ccagtccctc 250  
 gcaccccttc ctgggacact atgttgttct ccgccctcct gctggagggtg 300  
 atttgatcc tggctgcaga tgggggtcaa cactggacgt atgagggcc 350  
 acatggtcag gaccattggc cagcctctta ccctgagtgt ggaaacaatg 400  
 cccagtcgcc catcgatatt cagacagaca gtgtgacatt tgaccctgat 450  
 ttgcctgctc tgcagcccca cggatatgac cagcctggca ccgagccttt 500  
 ggacctgcac aacaatggcc acacagtgc actctctctg ccctctaccc 550  
 tgtatctggg tggacttccc cgaaaatatg tagctgccca gctccacctg 600  
 cactggggtc agaaaggatc cccagggggg tcagaacacc agatcaacag 650  
 tgaagccaca tttgcagagc tccacattgt acattatgac tctgattcct 700  
 atgacagctt gagtgaggct gctgagaggc ctcagggcct ggctgtcctg 750  
 ggcatcctaa ttgaggtggg tgagactaag aatatagctt atgaacacat 800  
 tctgagtcac ttgcatgaag tcaggcataa agatcagaag acctcagtgc 850

ctcccttcaa cctaagagag ctgctcccca aacagctggg gcagtacttc 900  
cgctacaatg gctcgctcac aactccccct tgctaccaga gtgtgctctg 950  
gacagttttt tatagaaggt cccagatttc aatggaacag ctggaaaagc 1000  
ttcaggggac attgtttctcc acagaagagg agccctctaa gcttctggta 1050  
cagaactacc gagcccttca gcctctcaat cagcgcatgg tctttgcttc 1100  
tttcatccaa gcaggatcct cgtataccac aggtgaaatg ctgagtctag 1150  
gtgtaggaat cttgggtggc tgtctctgcc ttctcctggc tgtttatttc 1200  
attgctagaa agattcggaa gaagaggctg gaaaaccgaa agagtgtggt 1250  
cttcacctca gcacaagcca cgactgaggc ataaattcct tctcagatac 1300  
catggatgtg gatgacttcc cttcatgcct atcaggaagc ctctaaaatg 1350  
gggtgtagga tctggccaga aacactgtag gagtagtaag cagatgtcct 1400  
ccttcccctg gacatctctt agagaggaat ggaccaggc tgtcattcca 1450  
ggaagaactg cagagccttc agcctctcca aacatgtagg aggaaatgag 1500  
gaaatcgctg tgttggttaat gcagaganca aactctgttt agttgcaggg 1550  
gaagtttggg atatacccca aagtcctcta cccctcact tttatggccc 1600  
tttcctaga tatactgagg gatctctcct taggataaag agttgctggt 1650  
gaagttgtat atttttgatc aatatatttg gaaattaaag tttctgactt 1700  
t 1701

<210> 74

<211> 337

<212> PRT

<213> Homo Sapien

<400> 74

Met	Leu	Phe	Ser	Ala	Leu	Leu	Leu	Glu	Val	Ile	Trp	Ile	Leu	Ala
1				5				10					15	

Ala	Asp	Gly	Gly	Gln	His	Trp	Thr	Tyr	Glu	Gly	Pro	His	Gly	Gln
				20				25					30	

Asp	His	Trp	Pro	Ala	Ser	Tyr	Pro	Glu	Cys	Gly	Asn	Asn	Ala	Gln
				35				40					45	

Ser	Pro	Ile	Asp	Ile	Gln	Thr	Asp	Ser	Val	Thr	Phe	Asp	Pro	Asp
				50				55					60	

Leu	Pro	Ala	Leu	Gln	Pro	His	Gly	Tyr	Asp	Gln	Pro	Gly	Thr	Glu
				65				70					75	

Pro	Leu	Asp	Leu	His	Asn	Asn	Gly	His	Thr	Val	Gln	Leu	Ser	Leu		80	85	90
Pro	Ser	Thr	Leu	Tyr	Leu	Gly	Gly	Leu	Pro	Arg	Lys	Tyr	Val	Ala		95	100	105
Ala	Gln	Leu	His	Leu	His	Trp	Gly	Gln	Lys	Gly	Ser	Pro	Gly	Gly		110	115	120
Ser	Glu	His	Gln	Ile	Asn	Ser	Glu	Ala	Thr	Phe	Ala	Glu	Leu	His		125	130	135
Ile	Val	His	Tyr	Asp	Ser	Asp	Ser	Tyr	Asp	Ser	Leu	Ser	Glu	Ala		140	145	150
Ala	Glu	Arg	Pro	Gln	Gly	Leu	Ala	Val	Leu	Gly	Ile	Leu	Ile	Glu		155	160	165
Val	Gly	Glu	Thr	Lys	Asn	Ile	Ala	Tyr	Glu	His	Ile	Leu	Ser	His		170	175	180
Leu	His	Glu	Val	Arg	His	Lys	Asp	Gln	Lys	Thr	Ser	Val	Pro	Pro		185	190	195
Phe	Asn	Leu	Arg	Glu	Leu	Leu	Pro	Lys	Gln	Leu	Gly	Gln	Tyr	Phe		200	205	210
Arg	Tyr	Asn	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Tyr	Gln	Ser	Val		215	220	225
Leu	Trp	Thr	Val	Phe	Tyr	Arg	Arg	Ser	Gln	Ile	Ser	Met	Glu	Gln		230	235	240
Leu	Glu	Lys	Leu	Gln	Gly	Thr	Leu	Phe	Ser	Thr	Glu	Glu	Glu	Pro		245	250	255
Ser	Lys	Leu	Leu	Val	Gln	Asn	Tyr	Arg	Ala	Leu	Gln	Pro	Leu	Asn		260	265	270
Gln	Arg	Met	Val	Phe	Ala	Ser	Phe	Ile	Gln	Ala	Gly	Ser	Ser	Tyr		275	280	285
Thr	Thr	Gly	Glu	Met	Leu	Ser	Leu	Gly	Val	Gly	Ile	Leu	Val	Gly		290	295	300
Cys	Leu	Cys	Leu	Leu	Leu	Ala	Val	Tyr	Phe	Ile	Ala	Arg	Lys	Ile		305	310	315
Arg	Lys	Lys	Arg	Leu	Glu	Asn	Arg	Lys	Ser	Val	Val	Phe	Thr	Ser		320	325	330
Ala	Gln	Ala	Thr	Thr	Glu	Ala										335		

<210> 75  
 <211> 1743  
 <212> DNA

<213> Homo Sapien

<400> 75

```
tgccgctgcc gccgctgctg ctgttgctcc tggcggcgcc ttggggacgg 50
gcagttccct gtgtctctgg tggtttgctt aaacctgcaa acatcacctt 100
cttatccatc aacatgaaga atgtcttaca atggactcca ccagaggggtc 150
ttcaaggagt taaagttact tacactgtgc agtatttcat cacaaattgg 200
cccaccagag gtggcactga ctacagatga gaagtccatt tctgttgctc 250
tgacagctcc agagaagtgg aagagaaatc cagaagacct tctgttttcc 300
atgcaacaaa tatactccaa tctgaagtat aacgtgtctg tgttgaatac 350
taaatcaaac agaacgtggg ccagtggtgt gaccaaccac acgctgggtg 400
tcacctgggt ggagccgaac actctttact gcgtacacgt ggagtccttc 450
gtcccagggc cccctcgccg tgtcagcct tctgagaagc agtgtgccag 500
gactttgaaa gatcaatcat cagagttcaa ggctaaaatc atcttctggt 550
atgttttgcc catatctatt accgtgtttc ttttttctgt gatgggctat 600
tccatctacc gatatatcca cgttggcaaa gagaaacacc cagcaaattt 650
gattttgatt tatggaaatg aatttgacaa aagattcttt gtgcctgctg 700
aaaaaatcgt gattaacttt atcacctca atatctcgga tgattctaaa 750
atttctcatc aggatatgag ttactggga aaaagcagtg atgtatccag 800
ccttaatgat cctcagccca gcgggaacct gaggccccct caggaggaag 850
aggaggtgaa acatttaggg tatgcttcgc atttgatgga aattttttgt 900
gactctgaag aaaacacgga aggtacttct ctcaccacgc aagagtcctt 950
cagcagaaca atacccccgg ataaaacagt cattgaatat gaatatgatg 1000
tcagaaccac tgacatttgt gcggggcctg aagagcagga gctcagtttg 1050
caggaggagg tgtccacaca aggaacatta ttggagtcgc aggcagcggt 1100
ggcagtcttg ggcccgcaaa cgttacagta ctcatacacc cctcagctcc 1150
aagacttaga cccctggcg caggagcaca cagactcgga ggaggggccc 1200
gaggaagagc catcgacgac cctggtcgac tgggatcccc aaactggcag 1250
gctgtgtatt ccttcgctgt ccagcttcga ccaggattca gagggtgcg 1300
agccttctga ggggatggg ctcggagagg agggcttctt atctagactc 1350
```

tatgaggagc cggctccaga caggccacca ggagaaaatg aaacctatct 1400  
catgcaattc atggaggaat gggggttata tgtgcagatg gaaaactgat 1450  
gccaacactt ccttttgcct tttgtttcct gtgcaaaca gtgagtcacc 1500  
cctttgatcc cagccataaa gtacctggga tgaaagaagt tttttccagt 1550  
ttgtcagtgt ctgtgagaat tacttatttc ttttctctat tctcatagca 1600  
cgtgtgtgat tggttcatgc atgtaggctt cttacaatg atggtgggcc 1650  
tctggagtcc aggggctggc cggttgttct atgcagagaa agcagtcaat 1700  
aatgtttgc cagactgggt gcagaattta ttcaggtggg tgt 1743

<210> 76

<211> 442

<212> PRT

<213> Homo Sapien

<400> 76

Met	Ser	Tyr	Asn	Gly	Leu	His	Gln	Arg	Val	Phe	Lys	Glu	Leu	Lys
1				5					10					15
Leu	Leu	Thr	Leu	Cys	Ser	Ile	Ser	Ser	Gln	Ile	Gly	Pro	Pro	Glu
				20					25					30
Val	Ala	Leu	Thr	Thr	Asp	Glu	Lys	Ser	Ile	Ser	Val	Val	Leu	Thr
				35					40					45
Ala	Pro	Glu	Lys	Trp	Lys	Arg	Asn	Pro	Glu	Asp	Leu	Pro	Val	Ser
				50					55					60
Met	Gln	Gln	Ile	Tyr	Ser	Asn	Leu	Lys	Tyr	Asn	Val	Ser	Val	Leu
				65					70					75
Asn	Thr	Lys	Ser	Asn	Arg	Thr	Trp	Ser	Gln	Cys	Val	Thr	Asn	His
				80					85					90
Thr	Leu	Val	Leu	Thr	Trp	Leu	Glu	Pro	Asn	Thr	Leu	Tyr	Cys	Val
				95					100					105
His	Val	Glu	Ser	Phe	Val	Pro	Gly	Pro	Pro	Arg	Arg	Ala	Gln	Pro
				110					115					120
Ser	Glu	Lys	Gln	Cys	Ala	Arg	Thr	Leu	Lys	Asp	Gln	Ser	Ser	Glu
				125					130					135
Phe	Lys	Ala	Lys	Ile	Ile	Phe	Trp	Tyr	Val	Leu	Pro	Ile	Ser	Ile
				140					145					150
Thr	Val	Phe	Leu	Phe	Ser	Val	Met	Gly	Tyr	Ser	Ile	Tyr	Arg	Tyr
				155					160					165
Ile	His	Val	Gly	Lys	Glu	Lys	His	Pro	Ala	Asn	Leu	Ile	Leu	Ile
				170					175					180

Tyr Gly Asn Glu Phe Asp Lys Arg Phe Phe Val Pro Ala Glu Lys	185	190	195
Ile Val Ile Asn Phe Ile Thr Leu Asn Ile Ser Asp Asp Ser Lys	200	205	210
Ile Ser His Gln Asp Met Ser Leu Leu Gly Lys Ser Ser Asp Val	215	220	225
Ser Ser Leu Asn Asp Pro Gln Pro Ser Gly Asn Leu Arg Pro Pro	230	235	240
Gln Glu Glu Glu Glu Val Lys His Leu Gly Tyr Ala Ser His Leu	245	250	255
Met Glu Ile Phe Cys Asp Ser Glu Glu Asn Thr Glu Gly Thr Ser	260	265	270
Leu Thr Gln Gln Glu Ser Leu Ser Arg Thr Ile Pro Pro Asp Lys	275	280	285
Thr Val Ile Glu Tyr Glu Tyr Asp Val Arg Thr Thr Asp Ile Cys	290	295	300
Ala Gly Pro Glu Glu Gln Glu Leu Ser Leu Gln Glu Glu Val Ser	305	310	315
Thr Gln Gly Thr Leu Leu Glu Ser Gln Ala Ala Leu Ala Val Leu	320	325	330
Gly Pro Gln Thr Leu Gln Tyr Ser Tyr Thr Pro Gln Leu Gln Asp	335	340	345
Leu Asp Pro Leu Ala Gln Glu His Thr Asp Ser Glu Glu Gly Pro	350	355	360
Glu Glu Glu Pro Ser Thr Thr Leu Val Asp Trp Asp Pro Gln Thr	365	370	375
Gly Arg Leu Cys Ile Pro Ser Leu Ser Ser Phe Asp Gln Asp Ser	380	385	390
Glu Gly Cys Glu Pro Ser Glu Gly Asp Gly Leu Gly Glu Glu Gly	395	400	405
Leu Leu Ser Arg Leu Tyr Glu Glu Pro Ala Pro Asp Arg Pro Pro	410	415	420
Gly Glu Asn Glu Thr Tyr Leu Met Gln Phe Met Glu Glu Trp Gly	425	430	435
Leu Tyr Val Gln Met Glu Asn	440		

<210> 77

<211> 1636

<212> DNA



<213> Homo Sapien

<400> 77

gaggagcggg ccgaggactc cagcgtgccc aggtctggca tctgcactt 50  
gctgccctct gacacctggg aagatggcgg gcccgaggac cttcacctt 100  
ctctgtggtt tgctggcagc caccttgatc caagccaccc tcagtccac 150  
tgcagttctc atcctcggcc caaaagtcac caaagaaaag ctgacacagg 200  
agctgaagga ccacaacgcc accagcatcc tgcagcagct gccgctgctc 250  
agtgccatgc gggaaaagcc agccggaggc atccctgtgc tgggcagcct 300  
ggtgaacacc gtctgaagc acatcatctg gctgaaggtc atcacagcta 350  
acatcctcca gctgcagggtg aagccctcgg ccaatgacca ggagctgcta 400  
gtcaagatcc ccttgacat ggtggctgga ttcaacacgc cctgggtcaa 450  
gaccatcgtg gagttccaca tgacgactga ggcccaagcc accatccgca 500  
tggacaccag tgcaagtggc cccaccgcgc tggctctcag tgactgtgcc 550  
accagccatg ggagcctgcg catccaactg ctgtataagc tctccttct 600  
ggtgaacgcc ttagctaagc aggtcatgaa cctcctagtgc ccatccctgc 650  
ccaatctagt gaaaaaccag ctgtgtcccg tgatcgaggc ttccttcaat 700  
ggcatgtatg cagacctcct gcagctggtg aagggtgcca tttccctcag 750  
cattgaccgt ctggagtttg accttctgta tctgcccac aagggtgaca 800  
ccattcagct ctacctgggg gccaaagttgt tggactcaca gggaaagggtg 850  
accaagtggg tcaataactc tgcagcttcc ctgacaatgc ccaccctgga 900  
caacatcccg ttcagcctca tctgtagtcg ggacgtgggtg aaagctgcag 950  
tggctgctgt gctctctcca gaagaattca tggctctgtt ggactctgtg 1000  
cttcctgaga gtgcccacgc gctgaagtca agcatcgggc tgatcaatga 1050  
aaaggctgca gataagctgg gatctacca gatcgtgaag atcctaactc 1100  
aggacactcc cgagtttttt atagaccaag gccatgcaa ggtggcccaa 1150  
ctgatcgtgc tggaagtgtt tccctccagt gaagccctcc gccctttgtt 1200  
caccctgggc atcgaagcca gctcggaagc tcagttttac accaaagggtg 1250  
accaacttat actcaacttg aataacatca gctctgatcg gatccagctg 1300  
atgaactctg ggattggctg gttccaacct gatgttctga aaaacatcat 1350  
cactgagatc atccactcca tctgctgcc gaaccagaat ggcaaattaa 1400

gatctgggggt cccagtgtca ttggtgaagg ccttggggatt cgaggcagct 1450  
gagtcctcac tgaccaagga tgcccttggtg cttactccag cctccttggtg 1500  
gaaacccagc tctcctgtct cccagtgaag acttgggatgg cagccatcag 1550  
ggaaggctgg gtcccagctg ggagtatggg tgtgagctct atagaccatc 1600  
cctctctgca atcaataaac acttgccctgt gaaaaa 1636

<210> 78

<211> 484

<212> PRT

<213> Homo Sapien

<400> 78

Met	Ala	Gly	Pro	Trp	Thr	Phe	Thr	Leu	Leu	Cys	Gly	Leu	Leu	Ala	1	5	10	15
Ala	Thr	Leu	Ile	Gln	Ala	Thr	Leu	Ser	Pro	Thr	Ala	Val	Leu	Ile	20	25	30	
Leu	Gly	Pro	Lys	Val	Ile	Lys	Glu	Lys	Leu	Thr	Gln	Glu	Leu	Lys	35	40	45	
Asp	His	Asn	Ala	Thr	Ser	Ile	Leu	Gln	Gln	Leu	Pro	Leu	Leu	Ser	50	55	60	
Ala	Met	Arg	Glu	Lys	Pro	Ala	Gly	Gly	Ile	Pro	Val	Leu	Gly	Ser	65	70	75	
Leu	Val	Asn	Thr	Val	Leu	Lys	His	Ile	Ile	Trp	Leu	Lys	Val	Ile	80	85	90	
Thr	Ala	Asn	Ile	Leu	Gln	Leu	Gln	Val	Lys	Pro	Ser	Ala	Asn	Asp	95	100	105	
Gln	Glu	Leu	Leu	Val	Lys	Ile	Pro	Leu	Asp	Met	Val	Ala	Gly	Phe	110	115	120	
Asn	Thr	Pro	Leu	Val	Lys	Thr	Ile	Val	Glu	Phe	His	Met	Thr	Thr	125	130	135	
Glu	Ala	Gln	Ala	Thr	Ile	Arg	Met	Asp	Thr	Ser	Ala	Ser	Gly	Pro	140	145	150	
Thr	Arg	Leu	Val	Leu	Ser	Asp	Cys	Ala	Thr	Ser	His	Gly	Ser	Leu	155	160	165	
Arg	Ile	Gln	Leu	Leu	Tyr	Lys	Leu	Ser	Phe	Leu	Val	Asn	Ala	Leu	170	175	180	
Ala	Lys	Gln	Val	Met	Asn	Leu	Leu	Val	Pro	Ser	Leu	Pro	Asn	Leu	185	190	195	
Val	Lys	Asn	Gln	Leu	Cys	Pro	Val	Ile	Glu	Ala	Ser	Phe	Asn	Gly				

	200		205		210
Met Tyr Ala Asp	Leu Leu Gln Leu Val	Lys Val Pro Ile Ser	Leu		
	215		220		225
Ser Ile Asp Arg	Leu Glu Phe Asp Leu	Leu Tyr Pro Ala Ile	Lys		
	230		235		240
Gly Asp Thr Ile	Gln Leu Tyr Leu Gly	Ala Lys Leu Leu Asp	Ser		
	245		250		255
Gln Gly Lys Val	Thr Lys Trp Phe Asn	Asn Ser Ala Ala Ser	Leu		
	260		265		270
Thr Met Pro Thr	Leu Asp Asn Ile Pro	Phe Ser Leu Ile Val	Ser		
	275		280		285
Gln Asp Val Val	Lys Ala Ala Val Ala	Ala Val Leu Ser Pro	Glu		
	290		295		300
Glu Phe Met Val	Leu Leu Asp Ser Val	Leu Pro Glu Ser Ala	His		
	305		310		315
Arg Leu Lys Ser	Ser Ile Gly Leu Ile	Asn Glu Lys Ala Ala	Asp		
	320		325		330
Lys Leu Gly Ser	Thr Gln Ile Val Lys	Ile Leu Thr Gln Asp	Thr		
	335		340		345
Pro Glu Phe Phe	Ile Asp Gln Gly His	Ala Lys Val Ala Gln	Leu		
	350		355		360
Ile Val Leu Glu	Val Phe Pro Ser Ser	Glu Ala Leu Arg Pro	Leu		
	365		370		375
Phe Thr Leu Gly	Ile Glu Ala Ser Ser	Glu Ala Gln Phe Tyr	Thr		
	380		385		390
Lys Gly Asp Gln	Leu Ile Leu Asn Leu	Asn Asn Ile Ser Ser	Asp		
	395		400		405
Arg Ile Gln Leu	Met Asn Ser Gly Ile	Gly Trp Phe Gln Pro	Asp		
	410		415		420
Val Leu Lys Asn	Ile Ile Thr Glu Ile	Ile His Ser Ile Leu	Leu		
	425		430		435
Pro Asn Gln Asn	Gly Lys Leu Arg Ser	Gly Val Pro Val Ser	Leu		
	440		445		450
Val Lys Ala Leu	Gly Phe Glu Ala Ala	Glu Ser Ser Leu Thr	Lys		
	455		460		465
Asp Ala Leu Val	Leu Thr Pro Ala Ser	Leu Trp Lys Pro Ser	Ser		
	470		475		480
Pro Val Ser Gln					

<210> 79  
<211> 1475  
<212> DNA  
<213> Homo Sapien

<400> 79  
gagagaagtc agcctggcag agagactctg aaatgagga ttagagggtg 50  
tcaaggagca agagcttcag cctgaagaca agggagcagt ccctgaagac 100  
gcttctactg agagggtctgc catggcctct cttggcctcc aacttgtggg 150  
ctacatccta ggccttctgg ggcttttggg cacactgggt gccatgctgc 200  
tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250  
gttggtcttct ccaagggcct ctggatggaa tgtgccacac acagcacagg 300  
catcaccagc tgtgacatct atagaccctt tctgggcctg cccgctgaca 350  
tccaggctgc ccaggccatg atggtgacat ccagtgcatt ctctccctg 400  
gcctgcatta tctctgtggg gggcatgaga tgcacagtct tctgccagga 450  
atcccgagcc aaagacagag tggcggtagc aggtggagtc ttttccatcc 500  
ttggaggcct cctgggattc attcctgttg cctggaatct tcatgggagc 550  
ctacgggact tctactcacc actggtgcct gacagcatga aatttgagat 600  
tggagaggct ctttacttgg gcattatttc ttccctgttc tccctgatag 650  
ctggaatcat cctctgcttt tcctgctcat cccagagaaa tcgctccaac 700  
tactacgatg cctaccaagc ccaacctctt gccacaagga gctctccaag 750  
gcctggtcaa cctcccaaag tcaagagtga gttcaattcc tacagcctga 800  
cagggtatgt gtgaagaacc aggggccaga gctggggggg ggctgggtct 850  
gtgaaaaaca gtggacagca ccccgagggc cacagggtgag ggacactacc 900  
actggatcgt gtcagaaggt gctgctgagg atagactgac tttggccatt 950  
ggattgagca aaggcagaaa tgggggctag tgtaacagca tgcaggttga 1000  
attgccaaag atgctcgcca tgccagcctt tctgttttcc tcaccttgct 1050  
gctcccctgc cctaagtccc caacctcaa cttgaaaccc cattccctta 1100  
agccaggact cagaggatcc ctttgccctc tggtttacct gggactccat 1150  
ccccaaaccc actaatcaca tcccactgac tgaccctctg tgatcaaaga 1200  
ccctctctct ggctgaggtt ggctcttagc tcattgctgg ggatgggaag 1250

gagaagcagt ggcttttgtg ggcattgctc taacctactt ctcaagcttc 1300  
cctccaaaga aactgattgg ccctggaacc tccatccac tcttggtatg 1350  
actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400  
tacggtatcc aggggaacaga aagcaggatg caggatggga ggacaggaag 1450  
gcagcctggg acatttaaaa aaata 1475

<210> 80  
<211> 230  
<212> PRT  
<213> Homo Sapien

<400> 80  
Met Ala Ser Leu Gly Leu Gln Leu Val Gly Tyr Ile Leu Gly Leu  
1 5 10 15  
Leu Gly Leu Leu Gly Thr Leu Val Ala Met Leu Leu Pro Ser Trp  
20 25 30  
Lys Thr Ser Ser Tyr Val Gly Ala Ser Ile Val Thr Ala Val Gly  
35 40 45  
Phe Ser Lys Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly  
50 55 60  
Ile Thr Gln Cys Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala  
65 70 75  
Asp Ile Gln Ala Ala Gln Ala Met Met Val Thr Ser Ser Ala Ile  
80 85 90  
Ser Ser Leu Ala Cys Ile Ile Ser Val Val Gly Met Arg Cys Thr  
95 100 105  
Val Phe Cys Gln Glu Ser Arg Ala Lys Asp Arg Val Ala Val Ala  
110 115 120  
Gly Gly Val Phe Phe Ile Leu Gly Gly Leu Leu Gly Phe Ile Pro  
125 130 135  
Val Ala Trp Asn Leu His Gly Ile Leu Arg Asp Phe Tyr Ser Pro  
140 145 150  
Leu Val Pro Asp Ser Met Lys Phe Glu Ile Gly Glu Ala Leu Tyr  
155 160 165  
Leu Gly Ile Ile Ser Ser Leu Phe Ser Leu Ile Ala Gly Ile Ile  
170 175 180  
Leu Cys Phe Ser Cys Ser Ser Gln Arg Asn Arg Ser Asn Tyr Tyr  
185 190 195  
Asp Ala Tyr Gln Ala Gln Pro Leu Ala Thr Arg Ser Ser Pro Arg  
200 205 210

Pro Gly Gln Pro Pro Lys Val Lys Ser Glu Phe Asn Ser Tyr Ser  
 215 220 225

Leu Thr Gly Tyr Val  
 230

<210> 81  
 <211> 1732  
 <212> DNA  
 <213> Homo Sapien

<400> 81  
 cccacgcgtc cgcgccctctc ccttctgctg gaccttcctt cgtctctcca 50  
 tctctccctc ctttccccgc gttctctttc cacctttctc ttcttcccac 100  
 cttagacctc ctttctgccc ctcttttctt gccaccgct gcttcttggc 150  
 ccttctccga ccccgctcta gcagcagacc tcttgggggc tgtgggttga 200  
 tctgtggccc ctgtgccttc gtgtcctttt cgtctccctt cctcccgact 250  
 ccgctccccg accagcggcc tgaccctggg gaaaggatgg ttcccagagt 300  
 gagggctctc tctccttgc tgggactcgc gctgctctgg tccccctgg 350  
 actcccacgc tcgagcccgc ccagacatgt tctgcctttt ccatgggaag 400  
 agatactccc ccggcgagag ctggcacccc tacttggagc cacaaggcct 450  
 gatgtactgc ctgcgctgta cctgctcaga gggcgcccat gtgagttgtt 500  
 accgcctcca ctgtccgcct gtccactgcc cccagcctgt gacggagcca 550  
 cagcaatgct gtcccaagtg tgtggaacct cacactccct ctggactccg 600  
 ggccccacca aagtcttgc agcacaacgg gaccatgtac caacacggag 650  
 agatcttcag tgcccatgag ctgttcccct cccgcctgcc caaccagtgt 700  
 gtcctctgca gctgcacaga gggccagatc tactgcggcc tcacaacctg 750  
 cccgaacca ggctgcccag caccctccc actgccagac tctgctgcc 800  
 aagcctgcaa agatgaggca agtgagcaat cggatgaaga ggacagtgtg 850  
 cagtcgctcc atggggtgag acatcctcag gatccatgtt ccagtgatgc 900  
 tgggagaaaag agaggcccgg gcaccccgag cccactggc ctcagcgccc 950  
 ctctgagctt catccctcgc cacttcagac ccaagggagc aggcagcaca 1000  
 actgtcaaga tcgtcctgaa ggagaaacat aagaaagcct gtgtgcatgg 1050  
 cggaagacg tactcccacg gggaggtgtg gcacccggcc ttccgtgcct 1100  
 tcggccccctt gccctgcac ctatgcacct gtgaggatgg ccgccaggac 1150

tgccagcgtg tgacctgtcc caccgagtac ccctgccgtc accccgagaa 1200  
 agtggctggg aagtgtgtca agatttgccc agaggacaaa gcagaccctg 1250  
 gccacagtga gatcagttct accaggtgtc ccaaggcacc gggccgggtc 1300  
 ctggtccaca catcggtatc cccaagccca gacaacctgc gtcgctttgc 1350  
 cctggaacac gaggcctcgg acttggtgga gatctacctc tggaagctgg 1400  
 taaaagatga ggaaactgag gctcagagag gtgaagtacc tggcccaagg 1450  
 ccacacagcc agaattcttc acttgactca gatcaagaaa gtcaggaagc 1500  
 aagacttcca gaaagaggca cagcacttcc gactgctcgc tggccccccac 1550  
 gaaggtcact ggaacgtctt cctagcccag accctggagc tgaaggtcac 1600  
 ggccagtcca gacaaagtga ccaagacata acaaagacct aacagttgca 1650  
 gatatgagct gtataattgt tggtattata tattaataaa taagaagttg 1700  
 cattaccctc aaaaaaaaaa aaaaaaaaaa aa 1732

<210> 82  
 <211> 451  
 <212> PRT  
 <213> Homo Sapien

<400> 82  
 Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala  
 1 5 10 15  
 Leu Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp  
 20 25 30  
 Met Phe Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser  
 35 40 45  
 Trp His Pro Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg  
 50 55 60  
 Cys Thr Cys Ser Glu Gly Ala His Val Ser Cys Tyr Arg Leu His  
 65 70 75  
 Cys Pro Pro Val His Cys Pro Gln Pro Val Thr Glu Pro Gln Gln  
 80 85 90  
 Cys Cys Pro Lys Cys Val Glu Pro His Thr Pro Ser Gly Leu Arg  
 95 100 105  
 Ala Pro Pro Lys Ser Cys Gln His Asn Gly Thr Met Tyr Gln His  
 110 115 120  
 Gly Glu Ile Phe Ser Ala His Glu Leu Phe Pro Ser Arg Leu Pro  
 125 130 135

Asn	Gln	Cys	Val	Leu	Cys	Ser	Cys	Thr	Glu	Gly	Gln	Ile	Tyr	Cys		140	145	150
Gly	Leu	Thr	Thr	Cys	Pro	Glu	Pro	Gly	Cys	Pro	Ala	Pro	Leu	Pro		155	160	165
Leu	Pro	Asp	Ser	Cys	Cys	Gln	Ala	Cys	Lys	Asp	Glu	Ala	Ser	Glu		170	175	180
Gln	Ser	Asp	Glu	Glu	Asp	Ser	Val	Gln	Ser	Leu	His	Gly	Val	Arg		185	190	195
His	Pro	Gln	Asp	Pro	Cys	Ser	Ser	Asp	Ala	Gly	Arg	Lys	Arg	Gly		200	205	210
Pro	Gly	Thr	Pro	Ala	Pro	Thr	Gly	Leu	Ser	Ala	Pro	Leu	Ser	Phe		215	220	225
Ile	Pro	Arg	His	Phe	Arg	Pro	Lys	Gly	Ala	Gly	Ser	Thr	Thr	Val		230	235	240
Lys	Ile	Val	Leu	Lys	Glu	Lys	His	Lys	Lys	Ala	Cys	Val	His	Gly		245	250	255
Gly	Lys	Thr	Tyr	Ser	His	Gly	Glu	Val	Trp	His	Pro	Ala	Phe	Arg		260	265	270
Ala	Phe	Gly	Pro	Leu	Pro	Cys	Ile	Leu	Cys	Thr	Cys	Glu	Asp	Gly		275	280	285
Arg	Gln	Asp	Cys	Gln	Arg	Val	Thr	Cys	Pro	Thr	Glu	Tyr	Pro	Cys		290	295	300
Arg	His	Pro	Glu	Lys	Val	Ala	Gly	Lys	Cys	Cys	Lys	Ile	Cys	Pro		305	310	315
Glu	Asp	Lys	Ala	Asp	Pro	Gly	His	Ser	Glu	Ile	Ser	Ser	Thr	Arg		320	325	330
Cys	Pro	Lys	Ala	Pro	Gly	Arg	Val	Leu	Val	His	Thr	Ser	Val	Ser		335	340	345
Pro	Ser	Pro	Asp	Asn	Leu	Arg	Arg	Phe	Ala	Leu	Glu	His	Glu	Ala		350	355	360
Ser	Asp	Leu	Val	Glu	Ile	Tyr	Leu	Trp	Lys	Leu	Val	Lys	Asp	Glu		365	370	375
Glu	Thr	Glu	Ala	Gln	Arg	Gly	Glu	Val	Pro	Gly	Pro	Arg	Pro	His		380	385	390
Ser	Gln	Asn	Leu	Pro	Leu	Asp	Ser	Asp	Gln	Glu	Ser	Gln	Glu	Ala		395	400	405
Arg	Leu	Pro	Glu	Arg	Gly	Thr	Ala	Leu	Pro	Thr	Ala	Arg	Trp	Pro		410	415	420



Pro Arg Arg Ser Leu Glu Arg Leu Pro Ser Pro Asp Pro Gly Ala  
 425 430 435

Glu Gly His Gly Gln Ser Arg Gln Ser Asp Gln Asp Ile Thr Lys  
 440 445 450

Thr

<210> 83  
 <211> 2052  
 <212> DNA  
 <213> Homo Sapien

<400> 83  
 gacagctgtg tctcgatgga gtagactctc agaacagcgc agtttgccct 50  
 ccgctcacgc agagcctctc cgtggcttcc gcaccttgag cattaggcca 100  
 gttctcctct tctctctaat ccatcgcgtc cctctcctgt catccgtttc 150  
 catgccgtga ggtccattca cagaacacat ccatggctct catgctcagt 200  
 ttggttctga gtctcctcaa gctgggatca gggcagtggc aggtgtttgg 250  
 gccagacaag cctgtccagg ccttggtggg ggaggacgca gcattctcct 300  
 gtttctctgt tcctaagacc aatgcagagg ccatggaagt gcggttcttc 350  
 aggggccagt tctctagcgt ggtccacctc tacagggacg ggaaggacca 400  
 gccatttatg cagatgccac agtatcaagg caggacaaaa ctggtgaagg 450  
 attctattgc ggaggggcgc atctctctga ggctggaaaa cattactgtg 500  
 ttggatgctg gcctctatgg gtgcaggatt agttcccagt cttactacca 550  
 gaaggccatc tgggagctac aggtgtcagc actgggctca gttcctctca 600  
 tttccatcac gggatatgtt gatagagaca tccagctact ctgtcagtcc 650  
 tcgggctggt tccccgggc cacagcgaag tggaaaggtc cacaaggaca 700  
 ggatttgtcc acagactcca ggacaaacag agacatgcat ggctgtttg 750  
 atgtggagat ctctctgacc gtccaagaga acgccgggag catatcctgt 800  
 tccatgcggc atgctcatct gagccgagag gtggaatcca gggtagagat 850  
 aggagatacc tttttcgagc ctatatcgtg gcacctggct accaaagtac 900  
 tgggaatact ctgctgtggc ctatTTTTTg gcattgttgg actgaagatt 950  
 ttcttctcca aattccagtg gaaaatccag gcggaactgg actggagaag 1000  
 aaagcacgga caggcagaat tgagagacgc ccggaaacac gcagtggagg 1050

tgactctgga tccagagacg gctcaccoga agctctgcgt ttctgatctg 1100  
 aaaactgtaa cccatagaaa agctcccag gaggtgcctc actctgagaa 1150  
 gagatttaca aggaagagtg tgggtggcttc tcagagtttc caagcaggga 1200  
 aacattactg ggaggtggac ggaggacaca ataaaagggtg gcgcgtggga 1250  
 gtgtgccggg atgatgtgga caggaggaag gagtacgtga ctttgtctcc 1300  
 cgatcatggg tactgggtcc tcagaactgaa tggagaacat ttgtatttca 1350  
 cattaaatcc ccgtttttatc agcgtcttcc ccaggacccc acctacaaaa 1400  
 ataggggtct tcctggacta tgagtgtggg accatctcct tcttcaacat 1450  
 aaatgaccag tcccttattt ataccctgac atgtcgggtt gaaggcttat 1500  
 tgaggcccta cattgagtat ccgtcctata atgagcaaaa tggaaactccc 1550  
 atagtcatct gcccagtcac ccaggaatca gagaaagagg cctcttggca 1600  
 aagggcctct gcaatcccag agacaagcaa cagtgagtc tctcacagg 1650  
 caaccacgcc ctctctcccc aggggtgaaa tgtaggatga atcacatccc 1700  
 acattcttct ttagggatat taaggctctct ctcccagatc caaagtcccg 1750  
 cagcagccgg ccaagggtggc ttccagatga agggggactg gcctgtccac 1800  
 atgggagtca ggtgtcatgg ctgccctgag ctgggagggga agaaggctga 1850  
 cattacattt agtttgcctc cactccatct ggctaagtga tcttgaaata 1900  
 ccacctctca ggtgaagaac cgtcaggaat tcccatctca caggctgtgg 1950  
 tgtagattaa gtagacaagg aatgtgaata atgcttagat cttattgatg 2000  
 acagagtgta tcctaattgt ttgttcatta tattacactt tcagtaaaaa 2050  
 aa 2052

<210> 84

<211> 500

<212> PRT

<213> Homo Sapien

<400> 84

Met	Ala	Leu	Met	Leu	Ser	Leu	Val	Leu	Ser	Leu	Leu	Lys	Leu	Gly
1				5					10					15
Ser	Gly	Gln	Trp	Gln	Val	Phe	Gly	Pro	Asp	Lys	Pro	Val	Gln	Ala
				20					25					30
Leu	Val	Gly	Glu	Asp	Ala	Ala	Phe	Ser	Cys	Phe	Leu	Ser	Pro	Lys
				35					40					45
Thr	Asn	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Gly	Gln	Phe

				50						55					60
Ser	Ser	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Lys	Asp	Gln	Pro	Phe	
				65					70					75	
Met	Gln	Met	Pro	Gln	Tyr	Gln	Gly	Arg	Thr	Lys	Leu	Val	Lys	Asp	
				80					85					90	
Ser	Ile	Ala	Glu	Gly	Arg	Ile	Ser	Leu	Arg	Leu	Glu	Asn	Ile	Thr	
				95					100					105	
Val	Leu	Asp	Ala	Gly	Leu	Tyr	Gly	Cys	Arg	Ile	Ser	Ser	Gln	Ser	
				110					115					120	
Tyr	Tyr	Gln	Lys	Ala	Ile	Trp	Glu	Leu	Gln	Val	Ser	Ala	Leu	Gly	
				125					130					135	
Ser	Val	Pro	Leu	Ile	Ser	Ile	Thr	Gly	Tyr	Val	Asp	Arg	Asp	Ile	
				140					145					150	
Gln	Leu	Leu	Cys	Gln	Ser	Ser	Gly	Trp	Phe	Pro	Arg	Pro	Thr	Ala	
				155					160					165	
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Thr	Asp	Ser	Arg	
				170					175					180	
Thr	Asn	Arg	Asp	Met	His	Gly	Leu	Phe	Asp	Val	Glu	Ile	Ser	Leu	
				185					190					195	
Thr	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Ser	Cys	Ser	Met	Arg	His	
				200					205					210	
Ala	His	Leu	Ser	Arg	Glu	Val	Glu	Ser	Arg	Val	Gln	Ile	Gly	Asp	
				215					220					225	
Thr	Phe	Phe	Glu	Pro	Ile	Ser	Trp	His	Leu	Ala	Thr	Lys	Val	Leu	
				230					235					240	
Gly	Ile	Leu	Cys	Cys	Gly	Leu	Phe	Phe	Gly	Ile	Val	Gly	Leu	Lys	
				245					250					255	
Ile	Phe	Phe	Ser	Lys	Phe	Gln	Trp	Lys	Ile	Gln	Ala	Glu	Leu	Asp	
				260					265					270	
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys	
				275					280					285	
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys	
				290					295					300	
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro	
				305					310					315	
Gln	Glu	Val	Pro	His	Ser	Glu	Lys	Arg	Phe	Thr	Arg	Lys	Ser	Val	
				320					325					330	
Val	Ala	Ser	Gln	Ser	Phe	Gln	Ala	Gly	Lys	His	Tyr	Trp	Glu	Val	

335										340					345				
Asp	Gly	Gly	His	Asn	Lys	Arg	Trp	Arg	Val	Gly	Val	Cys	Arg	Asp					
				350					355					360					
Asp	Val	Asp	Arg	Arg	Lys	Glu	Tyr	Val	Thr	Leu	Ser	Pro	Asp	His					
				365					370					375					
Gly	Tyr	Trp	Val	Leu	Arg	Leu	Asn	Gly	Glu	His	Leu	Tyr	Phe	Thr					
				380					385					390					
Leu	Asn	Pro	Arg	Phe	Ile	Ser	Val	Phe	Pro	Arg	Thr	Pro	Pro	Thr					
				395					400					405					
Lys	Ile	Gly	Val	Phe	Leu	Asp	Tyr	Glu	Cys	Gly	Thr	Ile	Ser	Phe					
				410					415					420					
Phe	Asn	Ile	Asn	Asp	Gln	Ser	Leu	Ile	Tyr	Thr	Leu	Thr	Cys	Arg					
				425					430					435					
Phe	Glu	Gly	Leu	Leu	Arg	Pro	Tyr	Ile	Glu	Tyr	Pro	Ser	Tyr	Asn					
				440					445					450					
Glu	Gln	Asn	Gly	Thr	Pro	Ile	Val	Ile	Cys	Pro	Val	Thr	Gln	Glu					
				455					460					465					
Ser	Glu	Lys	Glu	Ala	Ser	Trp	Gln	Arg	Ala	Ser	Ala	Ile	Pro	Glu					
				470					475					480					
Thr	Ser	Asn	Ser	Glu	Ser	Ser	Ser	Gln	Ala	Thr	Thr	Pro	Phe	Leu					
				485					490					495					
Pro	Arg	Gly	Glu	Met															
				500															

<210> 85  
 <211> 1665  
 <212> DNA  
 <213> Homo Sapien

<400> 85  
 aacagacgtt ccctcgcggc cctggcacct ctaaccccag acatgctgct 50  
 gctgctgctg cccctgctct gggggaggga gagggcggaa ggacagacaa 100  
 gtaaactgct gacgatgcag agttccgtga cggatgcagga aggcctgtgt 150  
 gtccatgtgc cctgctcctt ctectacccc tcgcatggct ggatttacct 200  
 tggcccagta gttcatggct actggttccg ggaagggggc aatacagacc 250  
 aggatgctcc agtggccaca aacaaccag ctcgggcagt gtgggaggag 300  
 actcgggacc gattccacct ccttggggac ccacatacca agaattgcac 350  
 cctgagcatc agagatgcca gaagaagtga tgcggggaga tacttctttc 400

gtatggagaa aggaagtata aaatggaatt ataaacatca ccggtctct 450  
 gtgaatgtga cagccttgac ccacaggccc aacatcctca tcccaggcac 500  
 cctggagtcc ggctgcccc agaatctgac ctgctctgtg ccttgggcct 550  
 gtgagcaggg gacacccct atgatctcct ggataggagac ctccgtgtcc 600  
 cccctggacc cctccaccac ccgtcctcg gtgtcacc ccatccaca 650  
 gccccaggac catggcacca gctcacctg tcaggtgacc ttccctgggg 700  
 ccagcgtgac cacgaacaag accgtccatc tcaacgtgtc ctaccgcct 750  
 cagaacttga ccatgactgt cttccaagga gacggcacag tatccacagt 800  
 cttgggaaat ggctcatctc tgtcactccc agagggccag tctctgcgcc 850  
 tggctctgtgc agttgatgca gttgacagca atccccctgc caggctgagc 900  
 ctgagctgga gaggcctgac cctgtgcccc tcacagccct caaaccggg 950  
 ggtgctggag ctgccttggg tgcacctgag ggatgcagct gaattcacct 1000  
 gcagagctca gaaccctctc ggctctcagc aggtctacct gaacgtctcc 1050  
 ctgcagagca aagccacatc aggagtgact caggggggtgg tcgggggagc 1100  
 tggagccaca gccctggtct tctgtcctt ctgcgtcacc ttcgtttag 1150  
 tgaggtcctg caggaagaaa tcggcaaggc cagcagcggg cgtgggagat 1200  
 acgggcatag aggatgcaaa cgctgtcagg ggttcagcct ctccaggggc 1250  
 cctgactgaa ccttgggcag aagacagtcc ccagaccag cctccccag 1300  
 cttctgcccc ctctcagtg ggggaaggag agctccagta tgcattccctc 1350  
 agcttccaga tggatgaagc ttgggactcg cggggacagg aggcactga 1400  
 caccgagtac tcggagatca agatccacag atgagaaact gcagagactc 1450  
 accctgattg agggatcaca gccctccag gcaagggaga agtcagaggc 1500  
 tgattcttgt agaattaaca gccctcaacg tgatgagcta tgataacact 1550  
 atgaattatg tgcagagtga aaagcacaca ggctttagag tcaaagtatc 1600  
 tcaaacctga atccacactg tgcctccct tttatTTTTT taactaaaag 1650  
 acagacaaat tccta 1665

<210> 86

<211> 463

<212> PRT

<213> Homo Sapien

<400> 86

Met	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Trp	Gly	Arg	Glu	Arg	Ala	
1				5					10					15	
Glu	Gly	Gln	Thr	Ser	Lys	Leu	Leu	Thr	Met	Gln	Ser	Ser	Val	Thr	
				20					25					30	
Val	Gln	Glu	Gly	Leu	Cys	Val	His	Val	Pro	Cys	Ser	Phe	Ser	Tyr	
				35					40					45	
Pro	Ser	His	Gly	Trp	Ile	Tyr	Pro	Gly	Pro	Val	Val	His	Gly	Tyr	
				50					55					60	
Trp	Phe	Arg	Glu	Gly	Ala	Asn	Thr	Asp	Gln	Asp	Ala	Pro	Val	Ala	
				65					70					75	
Thr	Asn	Asn	Pro	Ala	Arg	Ala	Val	Trp	Glu	Glu	Thr	Arg	Asp	Arg	
				80					85					90	
Phe	His	Leu	Leu	Gly	Asp	Pro	His	Thr	Lys	Asn	Cys	Thr	Leu	Ser	
				95					100					105	
Ile	Arg	Asp	Ala	Arg	Arg	Ser	Asp	Ala	Gly	Arg	Tyr	Phe	Phe	Arg	
				110					115					120	
Met	Glu	Lys	Gly	Ser	Ile	Lys	Trp	Asn	Tyr	Lys	His	His	Arg	Leu	
				125					130					135	
Ser	Val	Asn	Val	Thr	Ala	Leu	Thr	His	Arg	Pro	Asn	Ile	Leu	Ile	
				140					145					150	
Pro	Gly	Thr	Leu	Glu	Ser	Gly	Cys	Pro	Gln	Asn	Leu	Thr	Cys	Ser	
				155					160					165	
Val	Pro	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro	Pro	Met	Ile	Ser	Trp	
				170					175					180	
Ile	Gly	Thr	Ser	Val	Ser	Pro	Leu	Asp	Pro	Ser	Thr	Thr	Arg	Ser	
				185					190					195	
Ser	Val	Leu	Thr	Leu	Ile	Pro	Gln	Pro	Gln	Asp	His	Gly	Thr	Ser	
				200					205					210	
Leu	Thr	Cys	Gln	Val	Thr	Phe	Pro	Gly	Ala	Ser	Val	Thr	Thr	Asn	
				215					220					225	
Lys	Thr	Val	His	Leu	Asn	Val	Ser	Tyr	Pro	Pro	Gln	Asn	Leu	Thr	
				230					235					240	
Met	Thr	Val	Phe	Gln	Gly	Asp	Gly	Thr	Val	Ser	Thr	Val	Leu	Gly	
				245					250					255	
Asn	Gly	Ser	Ser	Leu	Ser	Leu	Pro	Glu	Gly	Gln	Ser	Leu	Arg	Leu	
				260					265					270	
Val	Cys	Ala	Val	Asp	Ala	Val	Asp	Ser	Asn	Pro	Pro	Ala	Arg	Leu	
				275					280					285	

Ser	Leu	Ser	Trp	Arg	Gly	Leu	Thr	Leu	Cys	Pro	Ser	Gln	Pro	Ser	
				290					295					300	
Asn	Pro	Gly	Val	Leu	Glu	Leu	Pro	Trp	Val	His	Leu	Arg	Asp	Ala	
				305					310					315	
Ala	Glu	Phe	Thr	Cys	Arg	Ala	Gln	Asn	Pro	Leu	Gly	Ser	Gln	Gln	
				320					325					330	
Val	Tyr	Leu	Asn	Val	Ser	Leu	Gln	Ser	Lys	Ala	Thr	Ser	Gly	Val	
				335					340					345	
Thr	Gln	Gly	Val	Val	Gly	Gly	Ala	Gly	Ala	Thr	Ala	Leu	Val	Phe	
				350					355					360	
Leu	Ser	Phe	Cys	Val	Ile	Phe	Val	Val	Val	Arg	Ser	Cys	Arg	Lys	
				365					370					375	
Lys	Ser	Ala	Arg	Pro	Ala	Ala	Gly	Val	Gly	Asp	Thr	Gly	Ile	Glu	
				380					385					390	
Asp	Ala	Asn	Ala	Val	Arg	Gly	Ser	Ala	Ser	Gln	Gly	Pro	Leu	Thr	
				395					400					405	
Glu	Pro	Trp	Ala	Glu	Asp	Ser	Pro	Pro	Asp	Gln	Pro	Pro	Pro	Ala	
				410					415					420	
Ser	Ala	Arg	Ser	Ser	Val	Gly	Glu	Gly	Glu	Leu	Gln	Tyr	Ala	Ser	
				425					430					435	
Leu	Ser	Phe	Gln	Met	Val	Lys	Pro	Trp	Asp	Ser	Arg	Gly	Gln	Glu	
				440					445					450	
Ala	Thr	Asp	Thr	Glu	Tyr	Ser	Glu	Ile	Lys	Ile	His	Arg			
				455					460						

<210> 87

<211> 1176

<212> DNA

<213> Homo Sapien

<400> 87

```

agaaagctgc actctgttga gctccagggc gcagtggagg gagggagtga 50
aggagctctc tgtacccaag gaaagtgcag ctgagactca gacaagatta 100
caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200
gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250
gtgcatttga tggcctgtat tttctccgca ctgagaatgg tgttatctac 300
cagaccttct gtgacatgac ctctgggggt ggcggtgga ccctgggtggc 350
cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400

```

```

gggccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450
tgggccaaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500
ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550
ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600
ctgaggtacc gcacggacac tggcttcctc cagacactgg gacataatct 650
gtttggcatc taccagaaat atccagtga atatggagaa ggaaagtgtt 700
ggactgacaa cggcccgggtg atccctgtgg tctatgattt tggcgacgcc 750
cagaaaacag catcttatta ctcaccctat ggccagcggg aattcactgc 800
gggatttggt cagttcaggg tatttaataa cgagagagca gccaacgcct 850
tgtgtgctgg aatgaggggc accggatgta aactgagca tcaactgcatt 900
ggtggaggag gatactttcc agaggccagt cccagcagt gtggagattt 950
ttctggtttt gattggagtg gatatggaac tcatgttggt tacagcagca 1000
gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050
tgtgggaggg aaccagacc tctcctccca accatgagat cccaaggatg 1100
gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
taaatacatat tgactcaaga aaaaaa 1176

```

<210> 88

<211> 313

<212> PRT

<213> Homo Sapien

<400> 88

Met	Asn	Gln	Leu	Ser	Phe	Leu	Leu	Phe	Leu	Ile	Ala	Thr	Thr	Arg
1				5					10					15
Gly	Trp	Ser	Thr	Asp	Glu	Ala	Asn	Thr	Tyr	Phe	Lys	Glu	Trp	Thr
				20					25					30
Cys	Ser	Ser	Ser	Pro	Ser	Leu	Pro	Arg	Ser	Cys	Lys	Glu	Ile	Lys
				35					40					45
Asp	Glu	Cys	Pro	Ser	Ala	Phe	Asp	Gly	Leu	Tyr	Phe	Leu	Arg	Thr
				50					55					60
Glu	Asn	Gly	Val	Ile	Tyr	Gln	Thr	Phe	Cys	Asp	Met	Thr	Ser	Gly
				65					70					75
Gly	Gly	Gly	Trp	Thr	Leu	Val	Ala	Ser	Val	His	Glu	Asn	Asp	Met
				80					85					90



Arg Gly Lys Cys Thr Val Gly Asp Arg Trp Ser Ser Gln Gln Gly	95	100	105
Ser Lys Ala Asp Tyr Pro Glu Gly Asp Gly Asn Trp Ala Asn Tyr	110	115	120
Asn Thr Phe Gly Ser Ala Glu Ala Ala Thr Ser Asp Asp Tyr Lys	125	130	135
Asn Pro Gly Tyr Tyr Asp Ile Gln Ala Lys Asp Leu Gly Ile Trp	140	145	150
His Val Pro Asn Lys Ser Pro Met Gln His Trp Arg Asn Ser Ser	155	160	165
Leu Leu Arg Tyr Arg Thr Asp Thr Gly Phe Leu Gln Thr Leu Gly	170	175	180
His Asn Leu Phe Gly Ile Tyr Gln Lys Tyr Pro Val Lys Tyr Gly	185	190	195
Glu Gly Lys Cys Trp Thr Asp Asn Gly Pro Val Ile Pro Val Val	200	205	210
Tyr Asp Phe Gly Asp Ala Gln Lys Thr Ala Ser Tyr Tyr Ser Pro	215	220	225
Tyr Gly Gln Arg Glu Phe Thr Ala Gly Phe Val Gln Phe Arg Val	230	235	240
Phe Asn Asn Glu Arg Ala Ala Asn Ala Leu Cys Ala Gly Met Arg	245	250	255
Val Thr Gly Cys Asn Thr Glu His His Cys Ile Gly Gly Gly Gly	260	265	270
Tyr Phe Pro Glu Ala Ser Pro Gln Gln Cys Gly Asp Phe Ser Gly	275	280	285
Phe Asp Trp Ser Gly Tyr Gly Thr His Val Gly Tyr Ser Ser Ser	290	295	300
Arg Glu Ile Thr Glu Ala Ala Val Leu Leu Phe Tyr Arg	305	310	

<210> 89

<211> 759

<212> DNA

<213> Homo Sapien

<400> 89

ctagatttgt cggcttgccg ggagacttca ggagtcgctg tctctgaact 50

tccagcctca gagaccgccg cccttgcccc cgagggccat gggccgggtc 100

tcagggcttg tgccctctcg ctctctgacg ctctggcgcc atctggtggt 150

cgatcatcacc ttattctgggt cccgggacag caacatacag gcctgcctgc 200  
 ctctcacgtt ccccccgag gagtatgaca agcaggacat tcagctgggtg 250  
 gccgcgctct ctgtcacctt gggcctcttt gcagtggagc tggccgggtt 300  
 cctctcagga gtctccatgt tcaacagcac ccagagcctc atctccattg 350  
 gggctcactg tagtgcattc gtggccctgt ccttcttcat attcgagcgt 400  
 tgggagtgca ctacgtattg gtacattttt gtcttctgca gtgcccttcc 450  
 agctgtcact gaaatggctt tattcgtcac cgtctttggg ctgaaaaaga 500  
 aacccttctg attaccttca tgacgggaac ctaaggacga agcctacagg 550  
 ggcaagggcc gcttcgtatt cctggaagaa ggaaggcata ggcttcgggt 600  
 ttcccctcgg aaactgcttc tgctggagga tatgtgttgg aataattacg 650  
 tcttgagtct gggattatcc gcattgtatt tagtgctttg taataaaata 700  
 tgttttgtag taacattaag acttatatac agttttaggg gacaattaa 750  
 aaaaaaaaa 759

<210> 90  
 <211> 140  
 <212> PRT  
 <213> Homo Sapien

<400> 90  
 Met Gly Arg Val Ser Gly Leu Val Pro Ser Arg Phe Leu Thr Leu  
 1 5 10 15  
 Leu Ala His Leu Val Val Val Ile Thr Leu Phe Trp Ser Arg Asp  
 20 25 30  
 Ser Asn Ile Gln Ala Cys Leu Pro Leu Thr Phe Thr Pro Glu Glu  
 35 40 45  
 Tyr Asp Lys Gln Asp Ile Gln Leu Val Ala Ala Leu Ser Val Thr  
 50 55 60  
 Leu Gly Leu Phe Ala Val Glu Leu Ala Gly Phe Leu Ser Gly Val  
 65 70 75  
 Ser Met Phe Asn Ser Thr Gln Ser Leu Ile Ser Ile Gly Ala His  
 80 85 90  
 Cys Ser Ala Ser Val Ala Leu Ser Phe Phe Ile Phe Glu Arg Trp  
 95 100 105  
 Glu Cys Thr Thr Tyr Trp Tyr Ile Phe Val Phe Cys Ser Ala Leu  
 110 115 120  
 Pro Ala Val Thr Glu Met Ala Leu Phe Val Thr Val Phe Gly Leu

125

130

135

Lys Lys Lys Pro Phe  
140

&lt;210&gt; 91

&lt;211&gt; 1871

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 91

ctgggacccc gaaaagagaa ggggagagcg aggggacgag agcggaggag 50  
gaagatgcaa ctgactcgct gctgcttcgt gttcctgggtg cagggtagcc 100  
tctatctggt catctgtggc caggatgatg gtccctcccg ctcagaggac 150  
cctgagcgtg atgaccacga gggccagccc cggccccggg tgccctcgga 200  
gcggggccac atctcaccta agtcccgcct catggccaat tccactctcc 250  
tagggctgct ggccccgcct ggggaggctt ggggcattct tgggcagccc 300  
cccaaccgcc cgaaccacag cccccaccc tcagccaagg tgaagaaaat 350  
ctttggctgg ggcgacttct actccaacat caagacgggtg gccctgaacc 400  
tgctcgtcac aggaagatt gtggaccatg gcaatgggac cttcagcgtc 450  
cacttccaac acaatgccac agggcaggga aacatctcca tcagcctcgt 500  
gccccccagt aaagctgtag agttccacca ggaacagcag atcttcatcg 550  
aagccaaggc ctccaaaatc ttcaactgcc ggatggagtg ggagaaggta 600  
gaacggggcc gccggacctc gctttgcacc cacgaccag ccaagatctg 650  
ctcccgagac cacgctcaga gctcagccac ctggagctgc tcccagccct 700  
tcaaagtcgt ctgtgtctac atcgcttct acagcacgga ctatcggtg 750  
gtccagaagg tgtgcccaga ttacaactac catagtata cccctacta 800  
cccatctggg tgaccggggg caggccacag agggcaggcc agggctggaa 850  
ggacaggcct gcccatgcag gagaccatct ggacaccggg cagggaaggg 900  
gttgggcctc aggcaggag gggggtggag acgaggagat gccaagtggg 950  
gccagggcca agtctcaagt ggcagagaaa ggggcccaag tgctggtccc 1000  
aacctgaagc tgtggagtga ctagatcaca ggagcactgg aggaggagtg 1050  
ggctctctgt gcagcctcac agggctttgc cacggagcca cagagagatg 1100  
ctgggtcccc gaggcctgtg ggcaggccga tcagtgtggc cccagatcaa 1150  
gtcatgggag gaagctaagc ccttggttct tgccatcctg aggaaagata 1200

gcaacagggga gggggagatt tcatcagtgt ggacagcctg tcaacttagg 1250  
atggatggct gagagggcctt cctaggagcc agtcagcagg gtgggggtggg 1300  
gccagaggag ctctccagcc ctgcctagtgt ggcgcctga gccccttgctc 1350  
gtgtgctgag catggcatga ggctgaagtgt gcaaccctgg ggtctttgat 1400  
gtcttgacag attgaccatc tgtctccagc caggccaccc ctttccaaaa 1450  
ttccctcttc tgccagtact ccccctgtac caccattgc tgatggcaca 1500  
cccatcctta agctaagaca ggacgattgt ggtcctccca cactaaggcc 1550  
acagcccatc cgcgtgctgt gtgtccctct tccaccccaa cccctgctgg 1600  
ctcctctggg agcatccatg tcccggagag gggtcctca acagtcagcc 1650  
tcacctgtca gaccgggggtt ctcccgatc tggatggcgc cgcctctca 1700  
gcagcgggca cgggtggggc ggggccgggc cgcagagcat gtgctggatc 1750  
tggtctgtgt gtctgtctgt ggggtggggg aggggagga agtcttgtga 1800  
aaccgctgat tgctgacttt tgtgtgaaga atcgtgttct tggagcagga 1850  
aataaagctt gcccggggc a 1871

<210> 92

<211> 252

<212> PRT

<213> Homo Sapien

<400> 92

Met	Gln	Leu	Thr	Arg	Cys	Cys	Phe	Val	Phe	Leu	Val	Gln	Gly	Ser	1	5	10	15
Leu	Tyr	Leu	Val	Ile	Cys	Gly	Gln	Asp	Asp	Gly	Pro	Pro	Gly	Ser	20	25	30	
Glu	Asp	Pro	Glu	Arg	Asp	Asp	His	Glu	Gly	Gln	Pro	Arg	Pro	Arg	35	40	45	
Val	Pro	Arg	Lys	Arg	Gly	His	Ile	Ser	Pro	Lys	Ser	Arg	Pro	Met	50	55	60	
Ala	Asn	Ser	Thr	Leu	Leu	Gly	Leu	Leu	Ala	Pro	Pro	Gly	Glu	Ala	65	70	75	
Trp	Gly	Ile	Leu	Gly	Gln	Pro	Pro	Asn	Arg	Pro	Asn	His	Ser	Pro	80	85	90	
Pro	Pro	Ser	Ala	Lys	Val	Lys	Lys	Ile	Phe	Gly	Trp	Gly	Asp	Phe	95	100	105	
Tyr	Ser	Asn	Ile	Lys	Thr	Val	Ala	Leu	Asn	Leu	Leu	Val	Thr	Gly	110	115	120	

Lys	Ile	Val	Asp	His	Gly	Asn	Gly	Thr	Phe	Ser	Val	His	Phe	Gln	125	130	135
His	Asn	Ala	Thr	Gly	Gln	Gly	Asn	Ile	Ser	Ile	Ser	Leu	Val	Pro	140	145	150
Pro	Ser	Lys	Ala	Val	Glu	Phe	His	Gln	Glu	Gln	Gln	Ile	Phe	Ile	155	160	165
Glu	Ala	Lys	Ala	Ser	Lys	Ile	Phe	Asn	Cys	Arg	Met	Glu	Trp	Glu	170	175	180
Lys	Val	Glu	Arg	Gly	Arg	Arg	Thr	Ser	Leu	Cys	Thr	His	Asp	Pro	185	190	195
Ala	Lys	Ile	Cys	Ser	Arg	Asp	His	Ala	Gln	Ser	Ser	Ala	Thr	Trp	200	205	210
Ser	Cys	Ser	Gln	Pro	Phe	Lys	Val	Val	Cys	Val	Tyr	Ile	Ala	Phe	215	220	225
Tyr	Ser	Thr	Asp	Tyr	Arg	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp	Tyr	230	235	240
Asn	Tyr	His	Ser	Asp	Thr	Pro	Tyr	Tyr	Pro	Ser	Gly				245	250	

<210> 93  
 <211> 902  
 <212> DNA  
 <213> Homo Sapien

<400> 93  
 cgggtggccat gactgcggcc gtgttcttcg gctg'gcctt cattgccttc 50  
 gggcctgcgc tcgcccttta tgtcttcacc atcgccatcg agccggttgcg 100  
 tatcatcttc ctcatcgccg gagctttctt ctggttggtg tctctactga 150  
 tttcgtccct tgtttggttc atggcaagag tcattattga caacaaagat 200  
 ggaccaacac agaaatatct gctgatcttt ggagcgtttg tctctgtcta 250  
 tatccaagaa atgttccgat ttgcatatta taaactctta aaaaaagcca 300  
 gtgaaggttt gaagagtata aaccaggtg agacagcacc ctctatgcga 350  
 ctgctggcct atgtttctgg cttgggcttt ggaatcatga gtggagtatt 400  
 ttcctttgtg aataccctat ctgactcctt ggggccaggc acagtgggca 450  
 ttcattggaga ttctcctcaa ttcttccttt attcagcttt catgacgctg 500  
 gtcattatct tgctgcatgt attctggggc attgtatttt ttgatggctg 550  
 tgagaagaaa aagtggggca tctccttat cgttctcctg acccacctgc 600

tgggtgtcagc ccagaccttc ataagttctt attatggaat aaacctggcg 650  
 tcagcattta taatcctggg gctcatgggc acctgggcat tcttagctgc 700  
 gggaggcagc tgccgaagcc tgaaactctg cctgctctgc caagacaaga 750  
 actttcttct ttacaaccag cgctccagat aacctcaggg aaccagcact 800  
 tcccaaaccg cagactacat ctttagagga agcacaactg tgcccttttc 850  
 tgaaaatccc tttttctggg ggaattgaga aagaaataaa actatgcaga 900  
 ta 902

<210> 94

<211> 257

<212> PRT

<213> Homo Sapien

<400> 94

Met	Thr	Ala	Ala	Val	Phe	Phe	Gly	Cys	Ala	Phe	Ile	Ala	Phe	Gly	1	5	10	15
Pro	Ala	Leu	Ala	Leu	Tyr	Val	Phe	Thr	Ile	Ala	Ile	Glu	Pro	Leu	20	25	30	
Arg	Ile	Ile	Phe	Leu	Ile	Ala	Gly	Ala	Phe	Phe	Trp	Leu	Val	Ser	35	40	45	
Leu	Leu	Ile	Ser	Ser	Leu	Val	Trp	Phe	Met	Ala	Arg	Val	Ile	Ile	50	55	60	
Asp	Asn	Lys	Asp	Gly	Pro	Thr	Gln	Lys	Tyr	Leu	Leu	Ile	Phe	Gly	65	70	75	
Ala	Phe	Val	Ser	Val	Tyr	Ile	Gln	Glu	Met	Phe	Arg	Phe	Ala	Tyr	80	85	90	
Tyr	Lys	Leu	Leu	Lys	Lys	Ala	Ser	Glu	Gly	Leu	Lys	Ser	Ile	Asn	95	100	105	
Pro	Gly	Glu	Thr	Ala	Pro	Ser	Met	Arg	Leu	Leu	Ala	Tyr	Val	Ser	110	115	120	
Gly	Leu	Gly	Phe	Gly	Ile	Met	Ser	Gly	Val	Phe	Ser	Phe	Val	Asn	125	130	135	
Thr	Leu	Ser	Asp	Ser	Leu	Gly	Pro	Gly	Thr	Val	Gly	Ile	His	Gly	140	145	150	
Asp	Ser	Pro	Gln	Phe	Phe	Leu	Tyr	Ser	Ala	Phe	Met	Thr	Leu	Val	155	160	165	
Ile	Ile	Leu	Leu	His	Val	Phe	Trp	Gly	Ile	Val	Phe	Phe	Asp	Gly	170	175	180	

Cys	Glu	Lys	Lys	Lys	Trp	Gly	Ile	Leu	Leu	Ile	Val	Leu	Leu	Thr
				185					190					195
His	Leu	Leu	Val	Ser	Ala	Gln	Thr	Phe	Ile	Ser	Ser	Tyr	Tyr	Gly
				200					205					210
Ile	Asn	Leu	Ala	Ser	Ala	Phe	Ile	Ile	Leu	Val	Leu	Met	Gly	Thr
				215					220					225
Trp	Ala	Phe	Leu	Ala	Ala	Gly	Gly	Ser	Cys	Arg	Ser	Leu	Lys	Leu
				230					235					240
Cys	Leu	Leu	Cys	Gln	Asp	Lys	Asn	Phe	Leu	Leu	Tyr	Asn	Gln	Arg
				245					250					255

Ser Arg

<210> 95  
 <211> 1073  
 <212> DNA  
 <213> Homo Sapien

<400> 95  
 aattttttcac cagagtaaacc ttgagaaacc aactggacct tgagtattgt 50  
 acatttttgcc tcgtggaccc aaaggtagca atctgaaaca tgaggagtac 100  
 gattctactg ttttgtcttc taggatcaac tcggtcatta ccacagctca 150  
 aacctgcttt gggactccct cccacaaaac tggctccgga tcaggaaca 200  
 ctaccaaacc aacagcagtc aaatcaggtc tttccttctt taagtctgat 250  
 accattaaca cagatgctca cactggggcc agatctgcat ctgttaaata 300  
 ctgctgcagg aatgacacct ggtaccaga cccaccatt gaccctggga 350  
 gggttgaatg tacaacagca actgcacca catgtgttac caatttttgt 400  
 cacacaactt ggagcccagg gcactatcct aagctcagag gaattgccac 450  
 aaatcttcac gagcctcatc atccattcct tgttcccggg aggcacctg 500  
 cccaccagtc aggcaggggc taatccagat gtccaggatg gaagccttcc 550  
 agcaggagga gcagggtgaa atcctgccac ccagggaacc ccagcaggcc 600  
 gcctcccaac tcccagtggc acagatgacg actttgcagt gaccaccct 650  
 gcaggcatcc aaaggagcac acatgccatc gaggaagcca ccacagaata 700  
 agcaaatgga attcagtaag ctgtttcaaa ttttttcaac taagctgcct 750  
 cgaatttggt gatacatgtg aatctttatc attgattata ttatggaata 800  
 gattgagaca cattggatag tcttagaaga aattaattct taatttacct 850

gaaaatattc ttgaaatttc agaaaatatg ttctatgtag agaatcccaa 900  
cttttaaaaa caataattca atggataaat ctgtctttga aatataacat 950  
tatgctgcct ggatgatatg catattaaaa catatttgga aaactggaaa 1000  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1050  
aaaaaaaaaa aaaaaaaaaa aaa 1073

<210> 96  
<211> 209  
<212> PRT  
<213> Homo Sapien

<400> 96  
Met Arg Ser Thr Ile Leu Leu Phe Cys Leu Leu Gly Ser Thr Arg  
1 5 10 15  
Ser Leu Pro Gln Leu Lys Pro Ala Leu Gly Leu Pro Pro Thr Lys  
20 25 30  
Leu Ala Pro Asp Gln Gly Thr Leu Pro Asn Gln Gln Gln Ser Asn  
35 40 45  
Gln Val Phe Pro Ser Leu Ser Leu Ile Pro Leu Thr Gln Met Leu  
50 55 60  
Thr Leu Gly Pro Asp Leu His Leu Leu Asn Pro Ala Ala Gly Met  
65 70 75  
Thr Pro Gly Thr Gln Thr His Pro Leu Thr Leu Gly Gly Leu Asn  
80 85 90  
Val Gln Gln Gln Leu His Pro His Val Leu Pro Ile Phe Val Thr  
95 100 105  
Gln Leu Gly Ala Gln Gly Thr Ile Leu Ser Ser Glu Glu Leu Pro  
110 115 120  
Gln Ile Phe Thr Ser Leu Ile Ile His Ser Leu Phe Pro Gly Gly  
125 130 135  
Ile Leu Pro Thr Ser Gln Ala Gly Ala Asn Pro Asp Val Gln Asp  
140 145 150  
Gly Ser Leu Pro Ala Gly Gly Ala Gly Val Asn Pro Ala Thr Gln  
155 160 165  
Gly Thr Pro Ala Gly Arg Leu Pro Thr Pro Ser Gly Thr Asp Asp  
170 175 180  
Asp Phe Ala Val Thr Thr Pro Ala Gly Ile Gln Arg Ser Thr His  
185 190 195  
Ala Ile Glu Glu Ala Thr Thr Glu Ser Ala Asn Gly Ile Gln



<210> 97  
 <211> 2848  
 <212> DNA  
 <213> Homo Sapien

<400> 97  
 gctcaagtgc cctgccttgc cccacccagc ccagcctggc cagagccccc 50  
 tggagaagga gctctcttct tgcttggcag ctggaccaag ggagccagtc 100  
 ttgggcgctg gagggcctgt cctgacccatg gtccctgcct ggctgtggct 150  
 gctttgtgtc tccgtccccc aggtctctcc caaggcccag cctgcagagc 200  
 tgtctgtgga agttccagaa aactatggtg gaaatttccc ttataacctg 250  
 accaagttgc cgctgccccg tgaggggggt gaaggccaga tcgtgctgtc 300  
 aggggactca ggcaaggcaa ctgagggccc atttgctatg gatccagatt 350  
 ctggcttccct gctggtgacc agggccctgg accgagagga gcaggcagag 400  
 taccagctac aggtcaccct ggagatgcag gatggacatg tcttgtgggg 450  
 tccacagcct gtgcttgtgc acgtgaagga tgagaatgac caggtgcccc 500  
 atttctctca agccatctac agagctcggc tgagccgggg taccaggcct 550  
 ggcatccct tctcttccct tgaggcttca gaccgggatg agccaggcac 600  
 agccaactcg gatcttcgat tccacatcct gagccaggct ccagcccagc 650  
 cttccccaga catgttccag ctggagcctc ggctgggggc tctggccctc 700  
 agccccaagg ggagcaccag ccttgaccac gccctggaga ggacctacca 750  
 gctgttggtg caggtcaagg acatgggtga ccaggcctca ggccaccagg 800  
 ccactgccac cgtggaagtc tccatcatag agagcacctg ggtgtcccta 850  
 gagcctatcc acctggcaga gaatctcaaa gtcctatacc cgcaccacat 900  
 ggcccaggta cactggagtg ggggtgatgt gcactatcac ctggagagcc 950  
 atcccccgga accctttgaa gtgaatgcag agggaaacct ctacgtgacc 1000  
 agagagctgg acagagaagc ccaggctgag tacctgctcc aggtgcgggc 1050  
 tcagaattcc catggcgagg actatgcggc ccctctggag ctgcacgtgc 1100  
 tgggtgatga tgagaatgac aacgtgccta tctgccctcc ccgtgacccc 1150  
 acagtcagca tccctgagct cagtccacca ggtactgaag tgactagact 1200  
 gtcagcagag gatgcagatg cccccggctc cccaattcc cacgttgtgt 1250

atcagctcct gagccctgag cctgaggatg gggtagaggg gagagccttc 1300  
 caggtggacc ccacttcagg cagtgtgacg ctgggggtgc tcccactccg 1350  
 agcaggccag aacatcctgc ttctgggtgct ggccatggac ctggcaggcg 1400  
 cagaggggtg cttcagcagc acgtgtgaag tcgaagtcgc agtcacagat 1450  
 atcaatgatc acgcccctga gttcatcact tcccagattg ggccataaag 1500  
 cctccctgag gatgtggagc cggggactct ggtggccatg ctaacagcca 1550  
 ttgatgctga cctcgagccc gccttcgcgc tcatggattt tgccattgag 1600  
 aggggagaca cagaagggac ttttggcctg gattgggagc cagactctgg 1650  
 gcatgttaga ctcagactct gcaagaacct cagttatgag gcagctccaa 1700  
 gtcattgaggt ggtggtggtg gtgcagagtg tggcgaagct ggtggggcca 1750  
 ggcccaggcc ctggagccac cgccacggtg actgtgctag tggagagagt 1800  
 gatgccaccc cccaagttgg accaggagag ctacgaggcc agtgtcccca 1850  
 tcagtgcctc agccggctct ttccctgctga ccatccagcc ctccgacccc 1900  
 atcagccgaa ccctcagggt ctccctagtc aatgactcag agggctgggt 1950  
 ctgcattgag aaattctccg gggaggtgca caccgcccag tccctgcagg 2000  
 gcgcccagcc tggggacacc tacacggtgc ttgtggaggc ccaggataca 2050  
 gccctgactc ttgcccctgt gccctcccaa tacctctgca cccccgcca 2100  
 agaccatggc ttgatcgtga gtggaccag caaggacccc gatctggcca 2150  
 gtgggcacgg tccttacagc ttcacccttg gtcccaaccc cacggtgcaa 2200  
 cgggattggc gcctccagac tctcaatggt tcccatgcct acctcacctt 2250  
 ggccctgcat tgggtggagc cacgtgaaca cataatcccc gtggtggtca 2300  
 gccacaatgc ccagatgtgg cagctcctgg ttcgagtgat cgtgtgtcgc 2350  
 tgcaacgtgg aggggcagtg catgcgcaag gtgggccgca tgaaggcat 2400  
 gccacgaag ctgtcggcag tgggcatacct tgtaggcacc ctggtagcaa 2450  
 taggaatctt cctcatcctc attttcaccc actggaccat gtcaaggaag 2500  
 aaggaccg atcaaccagc agacagcgtg cccctgaagg cgactgtctg 2550  
 aatggcccag gcagctctag ctgggagctt ggccctctggc tccatctgag 2600  
 tcccctggga gagagcccag cacccaagat ccagcagggg acaggacaga 2650

gtagaagccc ctccatctgc cctgggggtgg aggcaccatc accatcacca 2700  
ggcatgtctg cagagcctgg acaccaactt tatggactgc ccatgggagt 2750  
gctccaaatg tcagggtggt tgcccaataa taaagcccca gagaactggg 2800  
ctgggcccta tgggaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaag 2848

<210> 98  
<211> 807  
<212> PRT  
<213> Homo Sapien

<400> 98  
Met Val Pro Ala Trp Leu Trp Leu Leu Cys Val Ser Val Pro Gln  
1 5 10 15  
Ala Leu Pro Lys Ala Gln Pro Ala Glu Leu Ser Val Glu Val Pro  
20 25 30  
Glu Asn Tyr Gly Gly Asn Phe Pro Leu Tyr Leu Thr Lys Leu Pro  
35 40 45  
Leu Pro Arg Glu Gly Ala Glu Gly Gln Ile Val Leu Ser Gly Asp  
50 55 60  
Ser Gly Lys Ala Thr Glu Gly Pro Phe Ala Met Asp Pro Asp Ser  
65 70 75  
Gly Phe Leu Leu Val Thr Arg Ala Leu Asp Arg Glu Glu Gln Ala  
80 85 90  
Glu Tyr Gln Leu Gln Val Thr Leu Glu Met Gln Asp Gly His Val  
95 100 105  
Leu Trp Gly Pro Gln Pro Val Leu Val His Val Lys Asp Glu Asn  
110 115 120  
Asp Gln Val Pro His Phe Ser Gln Ala Ile Tyr Arg Ala Arg Leu  
125 130 135  
Ser Arg Gly Thr Arg Pro Gly Ile Pro Phe Leu Phe Leu Glu Ala  
140 145 150  
Ser Asp Arg Asp Glu Pro Gly Thr Ala Asn Ser Asp Leu Arg Phe  
155 160 165  
His Ile Leu Ser Gln Ala Pro Ala Gln Pro Ser Pro Asp Met Phe  
170 175 180  
Gln Leu Glu Pro Arg Leu Gly Ala Leu Ala Leu Ser Pro Lys Gly  
185 190 195  
Ser Thr Ser Leu Asp His Ala Leu Glu Arg Thr Tyr Gln Leu Leu  
200 205 210  
Val Gln Val Lys Asp Met Gly Asp Gln Ala Ser Gly His Gln Ala

	215		220		225
Thr Ala Thr Val	Glu Val Ser Ile Ile	Glu Ser Thr Trp Val	Ser		
	230		235		240
Leu Glu Pro Ile	His Leu Ala Glu Asn	Leu Lys Val Leu Tyr	Pro		
	245		250		255
His His Met Ala	Gln Val His Trp Ser	Gly Gly Asp Val His	Tyr		
	260		265		270
His Leu Glu Ser	His Pro Pro Gly Pro	Phe Glu Val Asn Ala	Glu		
	275		280		285
Gly Asn Leu Tyr	Val Thr Arg Glu Leu	Asp Arg Glu Ala Gln	Ala		
	290		295		300
Glu Tyr Leu Leu	Gln Val Arg Ala Gln	Asn Ser His Gly Glu	Asp		
	305		310		315
Tyr Ala Ala Pro	Leu Glu Leu His Val	Leu Val Met Asp Glu	Asn		
	320		325		330
Asp Asn Val Pro	Ile Cys Pro Pro Arg	Asp Pro Thr Val Ser	Ile		
	335		340		345
Pro Glu Leu Ser	Pro Pro Gly Thr Glu	Val Thr Arg Leu Ser	Ala		
	350		355		360
Glu Asp Ala Asp	Ala Pro Gly Ser Pro	Asn Ser His Val Val	Tyr		
	365		370		375
Gln Leu Leu Ser	Pro Glu Pro Glu Asp	Gly Val Glu Gly Arg	Ala		
	380		385		390
Phe Gln Val Asp	Pro Thr Ser Gly Ser	Val Thr Leu Gly Val	Leu		
	395		400		405
Pro Leu Arg Ala	Gly Gln Asn Ile Leu	Leu Leu Val Leu Ala	Met		
	410		415		420
Asp Leu Ala Gly	Ala Glu Gly Gly Phe	Ser Ser Thr Cys Glu	Val		
	425		430		435
Glu Val Ala Val	Thr Asp Ile Asn Asp	His Ala Pro Glu Phe	Ile		
	440		445		450
Thr Ser Gln Ile	Gly Pro Ile Ser Leu	Pro Glu Asp Val Glu	Pro		
	455		460		465
Gly Thr Leu Val	Ala Met Leu Thr Ala	Ile Asp Ala Asp Leu	Glu		
	470		475		480
Pro Ala Phe Arg	Leu Met Asp Phe Ala	Ile Glu Arg Gly Asp	Thr		
	485		490		495
Glu Gly Thr Phe	Gly Leu Asp Trp Glu	Pro Asp Ser Gly His	Val		

				500					505					510	
Arg	Leu	Arg	Leu	Cys	Lys	Asn	Leu	Ser	Tyr	Glu	Ala	Ala	Pro	Ser	
				515					520					525	
His	Glu	Val	Val	Val	Val	Val	Gln	Ser	Val	Ala	Lys	Leu	Val	Gly	
				530					535					540	
Pro	Gly	Pro	Gly	Pro	Gly	Ala	Thr	Ala	Thr	Val	Thr	Val	Leu	Val	
				545					550					555	
Glu	Arg	Val	Met	Pro	Pro	Pro	Lys	Leu	Asp	Gln	Glu	Ser	Tyr	Glu	
				560					565					570	
Ala	Ser	Val	Pro	Ile	Ser	Ala	Pro	Ala	Gly	Ser	Phe	Leu	Leu	Thr	
				575					580					585	
Ile	Gln	Pro	Ser	Asp	Pro	Ile	Ser	Arg	Thr	Leu	Arg	Phe	Ser	Leu	
				590					595					600	
Val	Asn	Asp	Ser	Glu	Gly	Trp	Leu	Cys	Ile	Glu	Lys	Phe	Ser	Gly	
				605					610					615	
Glu	Val	His	Thr	Ala	Gln	Ser	Leu	Gln	Gly	Ala	Gln	Pro	Gly	Asp	
				620					625					630	
Thr	Tyr	Thr	Val	Leu	Val	Glu	Ala	Gln	Asp	Thr	Ala	Leu	Thr	Leu	
				635					640					645	
Ala	Pro	Val	Pro	Ser	Gln	Tyr	Leu	Cys	Thr	Pro	Arg	Gln	Asp	His	
				650					655					660	
Gly	Leu	Ile	Val	Ser	Gly	Pro	Ser	Lys	Asp	Pro	Asp	Leu	Ala	Ser	
				665					670					675	
Gly	His	Gly	Pro	Tyr	Ser	Phe	Thr	Leu	Gly	Pro	Asn	Pro	Thr	Val	
				680					685					690	
Gln	Arg	Asp	Trp	Arg	Leu	Gln	Thr	Leu	Asn	Gly	Ser	His	Ala	Tyr	
				695					700					705	
Leu	Thr	Leu	Ala	Leu	His	Trp	Val	Glu	Pro	Arg	Glu	His	Ile	Ile	
				710					715					720	
Pro	Val	Val	Val	Ser	His	Asn	Ala	Gln	Met	Trp	Gln	Leu	Leu	Val	
				725					730					735	
Arg	Val	Ile	Val	Cys	Arg	Cys	Asn	Val	Glu	Gly	Gln	Cys	Met	Arg	
				740					745					750	
Lys	Val	Gly	Arg	Met	Lys	Gly	Met	Pro	Thr	Lys	Leu	Ser	Ala	Val	
				755					760					765	
Gly	Ile	Leu	Val	Gly	Thr	Leu	Val	Ala	Ile	Gly	Ile	Phe	Leu	Ile	
				770					775					780	
Leu	Ile	Phe	Thr	His	Trp	Thr	Met	Ser	Arg	Lys	Lys	Asp	Pro	Asp	

785

790

795

Gln Pro Ala Asp Ser Val Pro Leu Lys Ala Thr Val  
800 805

&lt;210&gt; 99

&lt;211&gt; 2436

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 99

```

ggctgaccgt gctacattgc ctggaggaag cctaaggaac ccaggcatcc 50
agctgcccac gcctgagtcc aagattcttc ccaggaacac aaacgtagga 100
gaccacgct cctggaagca ccagccttta tctcttcacc ttcaagtccc 150
ctttctcaag aatcctctgt tctttgccct ctaaagtctt ggtacatcta 200
ggaccaggc atcttgcttt ccagccacaa agagacagat gaagatgcag 250
aaaggaaatg ttctccttat gtttggtcta ctattgcatt tagaagctgc 300
aacaaattcc aatgagacta gcacctctgc caacactgga tccagtgtga 350
tctccagtgg agccagcaca gccaccaact ctgggtccag tgtgacctcc 400
agtgggggtca gcacagccac catctcaggg tccagcgtga cctccaatgg 450
ggtcagcata gtcaccaact ctgagttcca tacaacctcc agtgggatca 500
gcacagccac caactctgag ttcagcacag cgtccagtgg gatcagcata 550
gccaccaact ctgagtccag cacaacctcc agtggggcca gcacagccac 600
caactctgag tccagcacac cctccagtgg ggccagcaca gtcaccaact 650
ctgggtccag tgtgacctcc agtggagcca gcaactgccac caactctgag 700
tccagcacag tgtccagtag ggccagcact gccaccaact ctgagtctag 750
cacactctcc agtggggcca gcacagccac caactctgac tccagcaca 800
cctccagtgg ggctagcaca gccaccaact ctgagtccag cacaacctcc 850
agtggggcca gcacagccac caactctgag tccagcacag tgtccagtag 900
ggccagcact gccaccaact ctgagtccag cacaacctcc agtggggcca 950
gcacagccac caactctgag tccagaacga cctccaatgg ggctggcaca 1000
gccaccaact ctgagtccag cacgacctcc agtggggcca gcacagccac 1050
caactctgac tccagcacag tgtccagtgg ggccagcact gccaccaact 1100
ctgagtccag cacgacctcc agtggggcca gcacagccac caactctgag 1150

```

tccagcacga cctccagtgg ggctagcaca gccaccaact ctgactccag 1200  
 cacaacctcc agtgggggccc gcacagccac caactctgag tccagcacag 1250  
 tgtccagtgg gatcagcaca gtcaccaatt ctgagtccag cacacctcc 1300  
 agtggggcca acacagccac caactctgag tccagtacga cctccagtgg 1350  
 ggccaacaca gccaccaact ctgagtccag cacagtgtcc agtggggcca 1400  
 gcactgccac caactctgag tccagcaca cctccagtgg ggtcagcaca 1450  
 gccaccaact ctgagtccag cacaacctcc agtgggggcta gcacagccac 1500  
 caactctgac tccagcaca cctccagtga ggccagcaca gccaccaact 1550  
 ctgagtctag cacagtgtcc agtgggatca gcacagtcac caattctgag 1600  
 tccagcaca cctccagtgg ggccaacaca gccaccaact ctgggtccag 1650  
 tgtgacctct gcaggctctg gaacagcagc tctgactgga atgcacacaa 1700  
 cttcccatag tgcattctact gcagtgagtg aggcaaagcc tgggtgggtcc 1750  
 ctgggtgccgt gggaaatctt cctcatcacc ctgggtctcg ttgtggcggc 1800  
 cgtggggctc tttgctgggc tcttcttctg tgtgagaaac agcctgtccc 1850  
 tgagaaacac ctttaacaca gctgtctacc accctcatgg cctcaaccat 1900  
 ggcccttggtc caggccctgg agggaatcat ggagcccccc acaggcccag 1950  
 gtggagtcct aactggttct ggaggagacc agtatcatcg atagccatgg 2000  
 agatgagcgg gaggaacagc gggccctgag cagccccgga agcaagtgcc 2050  
 gcattcttca ggaaggaaga gacctgggca cccaagacct ggtttccttt 2100  
 cattcatccc aggagacccc tcccagcttt gtttgagatc ctgaaaatct 2150  
 tgaagaaggt attcctcacc tttcttgctt ttaccagaca ctggaaagag 2200  
 aatactatat tgctcattta gctaagaaat aaatacatct catctaacac 2250  
 acacgacaaa gagaagctgt gcttgccccg ggggtgggtat ctagctctga 2300  
 gatgaactca gttataggag aaaacctcca tgctggactc catctggcat 2350  
 tcaaaatctc cacagtaaaa tccaaagacc tcaaaaaaaaa aaaaaaaaaa 2400  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2436

<210> 100  
 <211> 596  
 <212> PRT  
 <213> Homo Sapien

<400> 100

Met	Lys	Met	Gln	Lys	Gly	Asn	Val	Leu	Leu	Met	Phe	Gly	Leu	Leu	1	5	10	15
Leu	His	Leu	Glu	Ala	Ala	Thr	Asn	Ser	Asn	Glu	Thr	Ser	Thr	Ser	20	25	30	
Ala	Asn	Thr	Gly	Ser	Ser	Val	Ile	Ser	Ser	Gly	Ala	Ser	Thr	Ala	35	40	45	
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala	50	55	60	
Thr	Ile	Ser	Gly	Ser	Ser	Val	Thr	Ser	Asn	Gly	Val	Ser	Ile	Val	65	70	75	
Thr	Asn	Ser	Glu	Phe	His	Thr	Thr	Ser	Ser	Gly	Ile	Ser	Thr	Ala	80	85	90	
Thr	Asn	Ser	Glu	Phe	Ser	Thr	Ala	Ser	Ser	Gly	Ile	Ser	Ile	Ala	95	100	105	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	110	115	120	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Ser	Thr	Val	125	130	135	
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	140	145	150	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala	155	160	165	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Leu	Ser	Ser	Gly	Ala	Ser	Thr	Ala	170	175	180	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	185	190	195	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	200	205	210	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala	215	220	225	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	230	235	240	
Thr	Asn	Ser	Glu	Ser	Arg	Thr	Thr	Ser	Asn	Gly	Ala	Gly	Thr	Ala	245	250	255	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	260	265	270	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala	275	280	285	



Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala	290	295	300
Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala	305	310	315
Thr Asn Ser Asp Ser Ser Thr Thr Ser Ser Gly Ala Gly Thr Ala	320	325	330
Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Gly Ile Ser Thr Val	335	340	345
Thr Asn Ser Glu Ser Ser Thr Pro Ser Ser Gly Ala Asn Thr Ala	350	355	360
Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Asn Thr Ala	365	370	375
Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Gly Ala Ser Thr Ala	380	385	390
Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Val Ser Thr Ala	395	400	405
Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala	410	415	420
Thr Asn Ser Asp Ser Ser Thr Thr Ser Ser Glu Ala Ser Thr Ala	425	430	435
Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Gly Ile Ser Thr Val	440	445	450
Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Asn Thr Ala	455	460	465
Thr Asn Ser Gly Ser Ser Val Thr Ser Ala Gly Ser Gly Thr Ala	470	475	480
Ala Leu Thr Gly Met His Thr Thr Ser His Ser Ala Ser Thr Ala	485	490	495
Val Ser Glu Ala Lys Pro Gly Gly Ser Leu Val Pro Trp Glu Ile	500	505	510
Phe Leu Ile Thr Leu Val Ser Val Val Ala Ala Val Gly Leu Phe	515	520	525
Ala Gly Leu Phe Phe Cys Val Arg Asn Ser Leu Ser Leu Arg Asn	530	535	540
Thr Phe Asn Thr Ala Val Tyr His Pro His Gly Leu Asn His Gly	545	550	555
Leu Gly Pro Gly Pro Gly Gly Asn His Gly Ala Pro His Arg Pro	560	565	570

Arg Trp Ser Pro Asn Trp Phe Trp Arg Arg Pro Val Ser Ser Ile  
575 580 585

Ala Met Glu Met Ser Gly Arg Asn Ser Gly Pro  
590 595

<210> 101  
<211> 1728  
<212> DNA  
<213> Homo Sapien

<400> 101  
ggccggacgc ctccgcgtta cgggatgaat taacggcggg ttccgcacgg 50  
aggttgtgac ccctacggag cccagcttg cccacgcacc ccaactcggcg 100  
tcgcgcggcg tgccctgctt gtcacaggtg ggaggctgga actatcaggc 150  
tgaaaaacag agtgggtact ctcttctggg aagctggcaa caaatggatg 200  
atgtgatata tgcattccag gggaagggaa attgtggtgc ttctgaaccc 250  
atggtcaatt aacgaggcag tttctagcta ctgcacgtac ttcataaagc 300  
aggactctaa aagctttgga atcatggtgt catggaaagg gatttacttt 350  
atactgactc tgttttgggg aagctttttt ggaagcattt tcatgctgag 400  
tcccttttta cttttgatgt ttgtaaaccc atcttggtat cgctggatca 450  
acaaccgcct tgtggcaaca tggctcacc caccctgtggc attattggag 500  
accatgtttg gtgtaaaagt gattataact ggggatgcat ttgttcctgg 550  
agaaagaagt gtcattatca tgaaccatcg gacaagaatg gactggatgt 600  
tcctgtggaa ttgcctgatg cgatatagct acctcagatt ggagaaaatt 650  
tgccctcaaag cgagtctcaa aggtgttcct ggatttggtt gggccatgca 700  
ggctgctgcc tatatcttca ttcataaggaa atggaaggat gacaagagcc 750  
atttcgaaga catgattgat tacttttgtg atattcacga accacttcaa 800  
ctcctcatat tcccagaagg gactgatctc acagaaaaca gcaagtctcg 850  
aagtaatgca tttgctgaaa aaaatggact tcagaaatat gaatatgttt 900  
tacatccaag aactacaggc ttacttttg tggtagaccg tctaagagaa 950  
ggtaagaacc ttgatgctgt ccatgatatc actgtggcgt atcctcacia 1000  
cattcctcaa tcagagaagc acctcctcca aggagacttt cccagggaaa 1050  
tccactttca cgtccaccgg tatccaatag acaccctccc cacatccaag 1100  
gaggaccttc aactctggtg ccacaaacgg tgggaagaga aagaagagag 1150

gctgcgttcc ttctatcaag gggagaagaa tttttatttt accggacaga 1200  
 gtgtcattcc accttgcaag tctgaactca gggtccttgt ggtcaaattg 1250  
 ctctctatac tgtattggac cctgttcagc cctgcaatgt gcctactcat 1300  
 atatttgtag agtcttggtta agtgggtattt tataatcacc attgtaattct 1350  
 ttgtgctgca agagagaata tttgggtggac tggagatcat agaacttgca 1400  
 tgttaccgac ttttacacaa acagccacat ttaaattcaa agaaaaatga 1450  
 gtaagattat aagggttgcc atgtgaaaac ctagagcata ttttggaat 1500  
 gttctaaacc tttctaagct cagatgcatt tttgcatgac tatgtcgaat 1550  
 atttcttact gccatcatta tttgttaaag atattttgca ctttaattttg 1600  
 tgggaaaaat attgctacaa ttttttttaa tctctgaatg taatttcgat 1650  
 actgtgtaca tagcagggag tgatcggggg gaaataactt gggccagaat 1700  
 attattaac aatcatcagg cttttaaa 1728

<210> 102  
 <211> 414  
 <212> PRT  
 <213> Homo Sapien

<400> 102  
 Met His Ser Arg Gly Arg Glu Ile Val Val Leu Leu Asn Pro Trp  
 1 5 10 15  
 Ser Ile Asn Glu Ala Val Ser Ser Tyr Cys Thr Tyr Phe Ile Lys  
 20 25 30  
 Gln Asp Ser Lys Ser Phe Gly Ile Met Val Ser Trp Lys Gly Ile  
 35 40 45  
 Tyr Phe Ile Leu Thr Leu Phe Trp Gly Ser Phe Phe Gly Ser Ile  
 50 55 60  
 Phe Met Leu Ser Pro Phe Leu Pro Leu Met Phe Val Asn Pro Ser  
 65 70 75  
 Trp Tyr Arg Trp Ile Asn Asn Arg Leu Val Ala Thr Trp Leu Thr  
 80 85 90  
 Leu Pro Val Ala Leu Leu Glu Thr Met Phe Gly Val Lys Val Ile  
 95 100 105  
 Ile Thr Gly Asp Ala Phe Val Pro Gly Glu Arg Ser Val Ile Ile  
 110 115 120  
 Met Asn His Arg Thr Arg Met Asp Trp Met Phe Leu Trp Asn Cys  
 125 130 135

Leu Met Arg Tyr	Ser Tyr Leu Arg Leu	Glu Lys Ile Cys Leu Lys	140	145	150
Ala Ser Leu Lys	Gly Val Pro Gly Phe	Gly Trp Ala Met Gln Ala	155	160	165
Ala Ala Tyr Ile	Phe Ile His Arg Lys	Trp Lys Asp Asp Lys Ser	170	175	180
His Phe Glu Asp	Met Ile Asp Tyr Phe	Cys Asp Ile His Glu Pro	185	190	195
Leu Gln Leu Leu	Ile Phe Pro Glu Gly	Thr Asp Leu Thr Glu Asn	200	205	210
Ser Lys Ser Arg	Ser Asn Ala Phe Ala	Glu Lys Asn Gly Leu Gln	215	220	225
Lys Tyr Glu Tyr	Val Leu His Pro Arg	Thr Thr Gly Phe Thr Phe	230	235	240
Val Val Asp Arg	Leu Arg Glu Gly Lys	Asn Leu Asp Ala Val His	245	250	255
Asp Ile Thr Val	Ala Tyr Pro His Asn	Ile Pro Gln Ser Glu Lys	260	265	270
His Leu Leu Gln	Gly Asp Phe Pro Arg	Glu Ile His Phe His Val	275	280	285
His Arg Tyr Pro	Ile Asp Thr Leu Pro	Thr Ser Lys Glu Asp Leu	290	295	300
Gln Leu Trp Cys	His Lys Arg Trp Glu	Glu Lys Glu Glu Arg Leu	305	310	315
Arg Ser Phe Tyr	Gln Gly Glu Lys Asn	Phe Tyr Phe Thr Gly Gln	320	325	330
Ser Val Ile Pro	Pro Cys Lys Ser Glu	Leu Arg Val Leu Val Val	335	340	345
Lys Leu Leu Ser	Ile Leu Tyr Trp Thr	Leu Phe Ser Pro Ala Met	350	355	360
Cys Leu Leu Ile	Tyr Leu Tyr Ser Leu	Val Lys Trp Tyr Phe Ile	365	370	375
Ile Thr Ile Val	Ile Phe Val Leu Gln	Glu Arg Ile Phe Gly Gly	380	385	390
Leu Glu Ile Ile	Glu Leu Ala Cys Tyr	Arg Leu Leu His Lys Gln	395	400	405
Pro His Leu Asn	Ser Lys Lys Asn Glu		410		

<210> 103  
<211> 2403  
<212> DNA  
<213> Homo Sapien

<400> 103  
cggctcgagc ggctcgagtg aagagcctct ccacggctcc tgcgcctgag 50  
acagctggcc tgacctccaa atcatccatc cacccttget gtcattctgtt 100  
ttcatagtgt gagatcaacc cacaggaata tccatggctt ttgtgctcat 150  
tttggttctc agtttctacg agctggtgtc aggacagtgg caagtcaactg 200  
gaccgggcaa gtttgtccag gccttggtgg gggaggacgc cgtgttctcc 250  
tgctccctct ttcctgagac cagtgcagag gctatggaag tgcggttctt 300  
caggaatcag ttccatgctg tggccacct ctacagagat ggggaagact 350  
gggaatctaa gcagatgcc aagtatcgag ggagaactga gtttgtgaag 400  
gactccattg caggggggag tgtctctcta aggctaaaaa acatcactcc 450  
ctcgacatc ggctgtatg ggtgctggtt cagttcccag atttacgatg 500  
aggaggccac ctgggagctg cgggtggcag cactgggctc acttctctc 550  
atttccatcg tgggatatgt tgacggaggt atccagttac tctgcctgtc 600  
ctcaggctgg tttccccagc ccacagccaa gtggaaaggt ccacaaggac 650  
aggatttgtc ttcagactcc agagcaaagc cagatgggta cagcctgtat 700  
gatgtggaga tctccattat agtccaggaa aatgctggga gcatattgtg 750  
ttccatccac cttgctgagc agagtcatga ggtggaatcc aaggtattga 800  
taggagagac gtttttccag cctcacctt ggcgcctggc ttctatttta 850  
ctcgggttac tctgtggtgc cctgtgtggt gttgtcatgg ggatgataat 900  
tgttttcttc aaatccaaag ggaaaatcca ggcggaactg gactggagaa 950  
gaaagcacgg acaggcagaa ttgagagacg cccggaaaca cgcagtggag 1000  
gtgactctgg atccagagac ggctcacccg aagctctgag tttctgatct 1050  
gaaaactgta acccatagaa aagctcccca ggaggtgcct cactctgaga 1100  
agagatttac aaggaagagt gtggtggctt ctcagggttt ccaagcaggg 1150  
agacattact gggaggtgga cgtgggacaa aatgtagggg ggtatgtggg 1200  
agtgtgtcgg gatgacgtag acagggggaa gaacaatgtg actttgtctc 1250  
ccaacaatgg gtattgggtc ctcagactga caacagaaca tttgtatttc 1300

acattcaatc cccattttat cagcctcccc cccagcacc ctcctacacg 1350  
 agtaggggtc ttcctggact atgaggggtg gaccatctcc ttcttcaata 1400  
 caaatgacca gtcccttatt tataccctgc tgacatgtca gtttgaaggc 1450  
 ttgttgagac cctatatcca gcatgcatg tatgacgagg aaaaggggac 1500  
 tcccatattc atatgtccag tgtcctgggg atgagacaga gaagaccctg 1550  
 cttaaagggc cccacaccac agaccagac acagccaagg gagagtgtc 1600  
 ccgacaggtg gcccagctt cctctccgga gcctgcgcac agagagtcac 1650  
 gccccccact ctcctttagg gagctgaggt tcttctgccc tgagccctgc 1700  
 agcagcggca gtcacagctt ccagatgagg ggggattggc ctgaccctgt 1750  
 gggagtcaga agccatggct gccctgaagt ggggacggaa tagactcaca 1800  
 ttaggttttag tttgtgaaaa ctccatccag ctaagcgatc ttgaacaagt 1850  
 cacaacctcc caggctctc atttgctagt cacggacagt gattcctgcc 1900  
 tcacaggtga agattaaaga gacaacgaat gtgaatcatg cttgcagggt 1950  
 tgagggcaca gtgtttgcta atgatgtgtt tttatattat acattttccc 2000  
 accataaact ctgtttgctt attccacatt aatttacttt tctctatacc 2050  
 aaatcaccca tggaatagtt attgaacacc tgctttgtga ggctcaaaga 2100  
 ataaagagga ggtaggattt ttcactgatt ctataagccc agcattacct 2150  
 gataccaaaa ccaggcaaag aaaacagaag aagaggaagg aaaactacag 2200  
 gtccatatcc ctcatthaaca cagacacaaa aattctaaat aaaattttta 2250  
 caaatataac taaacaatat atttaaagat gatataatac tactcagtgt 2300  
 ggtttgctcc acaaatgcag agttgggtta atatttaaat atcaaccagt 2350  
 gtaattcagc acattaataa agtaaaaaag aaaaccataa aaaaaaaaaa 2400

aaa 2403

<210> 104

<211> 466

<212> PRT

<213> Homo Sapien

<400> 104

Met	Ala	Phe	Val	Leu	Ile	Leu	Val	Leu	Ser	Phe	Tyr	Glu	Leu	Val
1				5				10					15	

Ser Gly Gln Trp Gln Val Thr Gly Pro Gly Lys Phe Val Gln Ala

20										25					30				
Leu	Val	Gly	Glu	Asp	Ala	Val	Phe	Ser	Cys	Ser	Leu	Phe	Pro	Glu					
				35					40					45					
Thr	Ser	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Asn	Gln	Phe					
				50					55					60					
His	Ala	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Glu	Asp	Trp	Glu	Ser					
				65					70					75					
Lys	Gln	Met	Pro	Gln	Tyr	Arg	Gly	Arg	Thr	Glu	Phe	Val	Lys	Asp					
				80					85					90					
Ser	Ile	Ala	Gly	Gly	Arg	Val	Ser	Leu	Arg	Leu	Lys	Asn	Ile	Thr					
				95					100					105					
Pro	Ser	Asp	Ile	Gly	Leu	Tyr	Gly	Cys	Trp	Phe	Ser	Ser	Gln	Ile					
				110					115					120					
Tyr	Asp	Glu	Glu	Ala	Thr	Trp	Glu	Leu	Arg	Val	Ala	Ala	Leu	Gly					
				125					130					135					
Ser	Leu	Pro	Leu	Ile	Ser	Ile	Val	Gly	Tyr	Val	Asp	Gly	Gly	Ile					
				140					145					150					
Gln	Leu	Leu	Cys	Leu	Ser	Ser	Gly	Trp	Phe	Pro	Gln	Pro	Thr	Ala					
				155					160					165					
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Ser	Asp	Ser	Arg					
				170					175					180					
Ala	Asn	Ala	Asp	Gly	Tyr	Ser	Leu	Tyr	Asp	Val	Glu	Ile	Ser	Ile					
				185					190					195					
Ile	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Leu	Cys	Ser	Ile	His	Leu					
				200					205					210					
Ala	Glu	Gln	Ser	His	Glu	Val	Glu	Ser	Lys	Val	Leu	Ile	Gly	Glu					
				215					220					225					
Thr	Phe	Phe	Gln	Pro	Ser	Pro	Trp	Arg	Leu	Ala	Ser	Ile	Leu	Leu					
				230					235					240					
Gly	Leu	Leu	Cys	Gly	Ala	Leu	Cys	Gly	Val	Val	Met	Gly	Met	Ile					
				245					250					255					
Ile	Val	Phe	Phe	Lys	Ser	Lys	Gly	Lys	Ile	Gln	Ala	Glu	Leu	Asp					
				260					265					270					
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys					
				275					280					285					
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys					
				290					295					300					
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro					

	305		310		315
Gln Glu Val Pro His Ser Glu Lys Arg Phe Thr Arg Lys Ser Val					
	320		325		330
Val Ala Ser Gln Gly Phe Gln Ala Gly Arg His Tyr Trp Glu Val					
	335		340		345
Asp Val Gly Gln Asn Val Gly Trp Tyr Val Gly Val Cys Arg Asp					
	350		355		360
Asp Val Asp Arg Gly Lys Asn Asn Val Thr Leu Ser Pro Asn Asn					
	365		370		375
Gly Tyr Trp Val Leu Arg Leu Thr Thr Glu His Leu Tyr Phe Thr					
	380		385		390
Phe Asn Pro His Phe Ile Ser Leu Pro Pro Ser Thr Pro Pro Thr					
	395		400		405
Arg Val Gly Val Phe Leu Asp Tyr Glu Gly Gly Thr Ile Ser Phe					
	410		415		420
Phe Asn Thr Asn Asp Gln Ser Leu Ile Tyr Thr Leu Leu Thr Cys					
	425		430		435
Gln Phe Glu Gly Leu Leu Arg Pro Tyr Ile Gln His Ala Met Tyr					
	440		445		450
Asp Glu Glu Lys Gly Thr Pro Ile Phe Ile Cys Pro Val Ser Trp					
	455		460		465

Gly

<210> 105

<211> 2103

<212> DNA

<213> Homo Sapien

<400> 105

ccttcacagg actcttcatt gctggttggc aatgatgtat cggccagatg 50

tggtgagggc taggaaaaga gtttgttggg aaccctgggt tatcggcctc 100

gtcatcttca tatccctgat tgtcctggca gtgtgcattg gactcactgt 150

tcattatgtg agatataatc aaaagaagac ctacaattac tatagcacat 200

tgtcatttac aactgacaaa ctatatgctg agtttggcag agaggcttct 250

aacaatttta cagaaatgag ccagagactt gaatcaatgg tgaaaaatgc 300

attttataaa tctccattaa gggaagaatt tgtcaagtct caggttatca 350

agttcagtca acagaagcat ggagtgttgg ctcatatgct gttgatttgt 400

agatttcact ctactgagga tcctgaaact gtagataaaa ttgttcaact 450



tgttttacat gaaaagctgc aagatgctgt aggaccccct aaagtagatc 500  
 ctcaactcagt taaaattaaa aaaatcaaca agacagaaac agacagctat 550  
 ctaaaccatt gctgcggaac acgaagaagt aaaactctag gtcagagtct 600  
 caggatcggt ggtgggacag aagtagaaga gggatgaatgg ccctggcagg 650  
 ctagcctgca gtgggatggg agtcatcgct gtggagcaac ctttaattaat 700  
 gccacatggc ttgtgagtgc tgctcactgt ttacaacat ataagaacc 750  
 tgccagatgg actgcttctt ttggagtaac aataaaacct tcgaaaatga 800  
 aacgggggtct ccggagaata attgtccatg aaaaatacaa acacccatca 850  
 catgactatg atattttctt tgcagagctt tctagccctg ttccctacac 900  
 aaatgcagta catagagttt gtctccctga tgcactctat gagtttcaac 950  
 caggtgatgt gatgtttgtg acaggatttg gagcactgaa aaatgatgg 1000  
 tacagtcaaa atcatcttcg acaagcacag gtgactctca tagacgctac 1050  
 aacttgcaat gaacctcaag cttacaatga cgccataact cctagaatgt 1100  
 tatgtgctgg ctcccttagaa ggaaaaacag atgcatgcca gggatgactct 1150  
 ggaggaccac tggtagttc agatgctaga gatctctggg accttgctgg 1200  
 aatagtgagc tggggagatg aatgtgcgaa acccaacaag cctgggtgtt 1250  
 atactagagt tacggccttg cgggactgga ttacttcaaa aactggtatc 1300  
 taagagacaa aagcctcatg gaacagataa catttttttt tgttttttgg 1350  
 gtgtggaggc cattttttaga gatacagaat tggagaagac ttgcaaaaca 1400  
 gctagatttg actgatctca ataaactgtt tgcttgatgc atgtattttc 1450  
 ttcccagctc tgttccgcac gtaagcatcc tgcttctgcc agatcaactc 1500  
 tgtcatctgt gagcaatagt tgaaacttta tgtacataga gaaatagata 1550  
 atacaatatt acattacagc ctgtattcat ttgttctcta gaagttttgt 1600  
 cagaattttg acttggtgac ataaatttgt aatgcatata tacaatttga 1650  
 agcactcctt ttcttcagtt cctcagctcc tctcatttca gcaaatatcc 1700  
 attttcaagg tgcagaacaa ggagtgaag aaaatataag aagaaaaaaa 1750  
 tcccctacat ttatttgga cagaaaagta ttaggtgttt ttcttagtgg 1800  
 aatattagaa atgatcatat tcattatgaa aggtcaagca aagacagcag 1850  
 aataccaatc acttcatcat ttaggaagta tgggaactaa gttaaggaag 1900

tccagaaaga agccaagata tatccttatt ttcatttcca aacaactact 1950  
atgataaatg tgaagaagat tctgtttttt tgtgacctat aataattata 2000  
caaacttcat gcaatgtact tgttctaagc aaattaaagc aaatatttat 2050  
ttaacattgt tactgaggat gtcaacatat aacaataaaa tataaatcac 2100  
cca 2103

<210> 106  
<211> 423  
<212> PRT  
<213> Homo Sapien

<400> 106  
Met Met Tyr Arg Pro Asp Val Val Arg Ala Arg Lys Arg Val Cys  
1 5 10 15  
Trp Glu Pro Trp Val Ile Gly Leu Val Ile Phe Ile Ser Leu Ile  
20 25 30  
Val Leu Ala Val Cys Ile Gly Leu Thr Val His Tyr Val Arg Tyr  
35 40 45  
Asn Gln Lys Lys Thr Tyr Asn Tyr Tyr Ser Thr Leu Ser Phe Thr  
50 55 60  
Thr Asp Lys Leu Tyr Ala Glu Phe Gly Arg Glu Ala Ser Asn Asn  
65 70 75  
Phe Thr Glu Met Ser Gln Arg Leu Glu Ser Met Val Lys Asn Ala  
80 85 90  
Phe Tyr Lys Ser Pro Leu Arg Glu Glu Phe Val Lys Ser Gln Val  
95 100 105  
Ile Lys Phe Ser Gln Gln Lys His Gly Val Leu Ala His Met Leu  
110 115 120  
Leu Ile Cys Arg Phe His Ser Thr Glu Asp Pro Glu Thr Val Asp  
125 130 135  
Lys Ile Val Gln Leu Val Leu His Glu Lys Leu Gln Asp Ala Val  
140 145 150  
Gly Pro Pro Lys Val Asp Pro His Ser Val Lys Ile Lys Lys Ile  
155 160 165  
Asn Lys Thr Glu Thr Asp Ser Tyr Leu Asn His Cys Cys Gly Thr  
170 175 180  
Arg Arg Ser Lys Thr Leu Gly Gln Ser Leu Arg Ile Val Gly Gly  
185 190 195  
Thr Glu Val Glu Glu Gly Glu Trp Pro Trp Gln Ala Ser Leu Gln

200										205					210				
Trp	Asp	Gly	Ser	His	Arg	Cys	Gly	Ala	Thr	Leu	Ile	Asn	Ala	Thr					
				215					220					225					
Trp	Leu	Val	Ser	Ala	Ala	His	Cys	Phe	Thr	Thr	Tyr	Lys	Asn	Pro					
				230					235					240					
Ala	Arg	Trp	Thr	Ala	Ser	Phe	Gly	Val	Thr	Ile	Lys	Pro	Ser	Lys					
				245					250					255					
Met	Lys	Arg	Gly	Leu	Arg	Arg	Ile	Ile	Val	His	Glu	Lys	Tyr	Lys					
				260					265					270					
His	Pro	Ser	His	Asp	Tyr	Asp	Ile	Ser	Leu	Ala	Glu	Leu	Ser	Ser					
				275					280					285					
Pro	Val	Pro	Tyr	Thr	Asn	Ala	Val	His	Arg	Val	Cys	Leu	Pro	Asp					
				290					295					300					
Ala	Ser	Tyr	Glu	Phe	Gln	Pro	Gly	Asp	Val	Met	Phe	Val	Thr	Gly					
				305					310					315					
Phe	Gly	Ala	Leu	Lys	Asn	Asp	Gly	Tyr	Ser	Gln	Asn	His	Leu	Arg					
				320					325					330					
Gln	Ala	Gln	Val	Thr	Leu	Ile	Asp	Ala	Thr	Thr	Cys	Asn	Glu	Pro					
				335					340					345					
Gln	Ala	Tyr	Asn	Asp	Ala	Ile	Thr	Pro	Arg	Met	Leu	Cys	Ala	Gly					
				350					355					360					
Ser	Leu	Glu	Gly	Lys	Thr	Asp	Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly					
				365					370					375					
Pro	Leu	Val	Ser	Ser	Asp	Ala	Arg	Asp	Ile	Trp	Tyr	Leu	Ala	Gly					
				380					385					390					
Ile	Val	Ser	Trp	Gly	Asp	Glu	Cys	Ala	Lys	Pro	Asn	Lys	Pro	Gly					
				395					400					405					
Val	Tyr	Thr	Arg	Val	Thr	Ala	Leu	Arg	Asp	Trp	Ile	Thr	Ser	Lys					
				410					415					420					

Thr Gly Ile

<210> 107

<211> 2397

<212> DNA

<213> Homo Sapien

<400> 107

agagaaagaa gcgtctccag ctgaagccaa tgcagccctc cggctctccg 50

cgaagaagtt ccctgccccg atgagcccc gccgtgcgtc cccgactatc 100

cccagggcggg cgtgggggcac cgggcccagc gccgacgac gctgccggtt 150  
tgcccttggg agtaggatgt ggtgaaagga tggggcttct cccttacggg 200  
gctcacaatg gccagagaag attccgtgaa gtgtctgcgc tgctgtctct 250  
acgcctcaa tctgtctctt tggttaatgt ccatcagtgt gttggcagtt 300  
tctgcttggg tgagggacta cctaaataat gttctcactt taactgcaga 350  
aacgagggta gaggaagcag tcattttgac ttactttcct gtggttcac 400  
cggtcacgat tgctgtttgc tgtttcctta tcattgtggg gatgttagga 450  
tattgtggaa cggtgaaaag aaatctgttg cttcttgcat ggtactttgg 500  
aagtttgctt gtcattttct gtgtagaact ggcttgtggc gtttgacat 550  
atgaacagga acttatgggt ccagtacaat ggtcagatat ggtcactttg 600  
aaagccagga tgacaaatta tggattacct agatatcggg ggcttactca 650  
tgcttggaat ttttttcaga gagagtttaa gtgctgtgga gtagtatatt 700  
tcactgactg gttggaaatg acagagatgg actggcccc agattcctgc 750  
tgtgttagag aattcccagg atgttccaaa caggcccacc aggaagatct 800  
cagtacctt tatcaagagg gttgtgggaa gaaaatgtat tcctttttga 850  
gaggaaccaa acaactgcag gtgctgaggt ttctgggaat ctccattggg 900  
gtgacacaaa tcctggccat gattctcacc attactctgc tctgggctct 950  
gtattatgat agaagggagc ctgggacaga ccaaatgatg tccttgaaga 1000  
atgacaactc tcagcacctg tcatgtccct cagtagaact gttgaaacca 1050  
agcctgtcaa gaatctttga acacacatcc atggcaaaca gctttaatac 1100  
acactttgag atggaggagt tataaaaaga aatgtcacag aagaaaacca 1150  
caaacttggt ttattggact tgtgaatfff tgagtacata ctatgtgttt 1200  
cagaaatatg tagaaataaa aatgttgcca taaaataaca cctaagcata 1250  
tactattcta tgctttaaaa tgaggatgga aaagtttcat gtcataagtc 1300  
accacctgga caataattga tgcccttaaa atgctgaaga cagatgtcat 1350  
accactgtg tagcctgtgt atgactttta ctgaacacag ttatgttttg 1400  
aggcagcatg gtttgattag catttccgca tccatgcaaa cgagtcacat 1450  
atggtgggac tggagccata gtaaagggtg atttacttct accaactagt 1500  
atataaagta ctaattaaat gctaacatag gaagttagaa aatactaata 1550

```

acttttatta ctcagcgatc tattcttctg atgctaaata aattatatat 1600
cagaaaactt tcaatattgg tgactaccta aatgtgattt ttgctgggta 1650
ctaaaatatt cttaccactt aaaagagcaa gctaacacat tgtcttaagc 1700
tgatcagggg ttttttgtat ataagtctgt gttaaatctg tataattcag 1750
tcgatttcag ttctgataat gttaagaata accattatga aaaggaaaat 1800
ttgtcctgta tagcatcatt attttttagcc tttcctgtta ataaagcttt 1850
actattctgt cctgggctta tattacacat ataactgtta tttaaatact 1900
taaccactaa ttttgaaaat taccagtgtg atacatagga atcattattc 1950
agaatgtagt ctgggtcttta ggaagtatta ataagaaaat ttgcacataa 2000
cttagttgat tcagaaagga cttgtatgct gtttttctcc caaatgaaga 2050
ctctttttga cactaaacac tttttaaaaa gcttatcttt gccttctcca 2100
aacaagaagc aatagtctcc aagtcaatat aaattctaca gaaaatagtg 2150
ttctttttct ccagaaaaat gcttgtgaga atcattaaaa catgtgacaa 2200
tttagagatt ctttgtttta tttcactgat taatatactg tggcaaatta 2250
cacagattat taaatttttt tacaagagta tagtatattt atttgaaatg 2300
ggaaaagtgc attttactgt attttgtgta ttttgtttat ttctcagaat 2350
atggaaagaa aattaaaatg tgtcaataaa tattttctag agagtaa 2397

```

```

<210> 108
<211> 305
<212> PRT
<213> Homo Sapien

```

```

<400> 108
Met Ala Arg Glu Asp Ser Val Lys Cys Leu Arg Cys Leu Leu Tyr
  1              5              10              15

Ala Leu Asn Leu Leu Phe Trp Leu Met Ser Ile Ser Val Leu Ala
              20              25              30

Val Ser Ala Trp Met Arg Asp Tyr Leu Asn Asn Val Leu Thr Leu
              35              40              45
Thr Ala Glu Thr Arg Val Glu Glu Ala Val Ile Leu Thr Tyr Phe
              50              55              60

Pro Val Val His Pro Val Met Ile Ala Val Cys Cys Phe Leu Ile
              65              70              75

Ile Val Gly Met Leu Gly Tyr Cys Gly Thr Val Lys Arg Asn Leu
              80              85              90

```

Leu	Leu	Leu	Ala	Trp	Tyr	Phe	Gly	Ser	Leu	Leu	Val	Ile	Phe	Cys	
				95					100					105	
Val	Glu	Leu	Ala	Cys	Gly	Val	Trp	Thr	Tyr	Glu	Gln	Glu	Leu	Met	
				110					115					120	
Val	Pro	Val	Gln	Trp	Ser	Asp	Met	Val	Thr	Leu	Lys	Ala	Arg	Met	
				125					130					135	
Thr	Asn	Tyr	Gly	Leu	Pro	Arg	Tyr	Arg	Trp	Leu	Thr	His	Ala	Trp	
				140					145					150	
Asn	Phe	Phe	Gln	Arg	Glu	Phe	Lys	Cys	Cys	Gly	Val	Val	Tyr	Phe	
				155					160					165	
Thr	Asp	Trp	Leu	Glu	Met	Thr	Glu	Met	Asp	Trp	Pro	Pro	Asp	Ser	
				170					175					180	
Cys	Cys	Val	Arg	Glu	Phe	Pro	Gly	Cys	Ser	Lys	Gln	Ala	His	Gln	
				185					190					195	
Glu	Asp	Leu	Ser	Asp	Leu	Tyr	Gln	Glu	Gly	Cys	Gly	Lys	Lys	Met	
				200					205					210	
Tyr	Ser	Phe	Leu	Arg	Gly	Thr	Lys	Gln	Leu	Gln	Val	Leu	Arg	Phe	
				215					220					225	
Leu	Gly	Ile	Ser	Ile	Gly	Val	Thr	Gln	Ile	Leu	Ala	Met	Ile	Leu	
				230					235					240	
Thr	Ile	Thr	Leu	Leu	Trp	Ala	Leu	Tyr	Tyr	Asp	Arg	Arg	Glu	Pro	
				245					250					255	
Gly	Thr	Asp	Gln	Met	Met	Ser	Leu	Lys	Asn	Asp	Asn	Ser	Gln	His	
				260					265					270	
Leu	Ser	Cys	Pro	Ser	Val	Glu	Leu	Leu	Lys	Pro	Ser	Leu	Ser	Arg	
				275					280					285	
Ile	Phe	Glu	His	Thr	Ser	Met	Ala	Asn	Ser	Phe	Asn	Thr	His	Phe	
				290					295					300	
Glu	Met	Glu	Glu	Leu											
				305											

<210> 109  
 <211> 2339  
 <212> DNA  
 <213> Homo Sapien

<400> 109  
 ccaaggccag agctgtggac accttatccc actcatcctc atcctcttcc 50  
 tctgataaag cccctaccag tgctgataaa gtcttttctcg tgagagccta 100  
 gaggccttaa aaaaaaaagt gcttgaaaga gaaggggaca aaggaacacc 150

agtattaaga ggattttcca gtgtttctgg cagttgggtcc agaaggatgc 200  
 ctccattcct gcttctcacc tgcctcttca tcacaggcac ctccgtgtca 250  
 cccgtggccc tagatccttg ttctgcttac atcagcctga atgagccctg 300  
 gaggaacact gaccaccagt tggatgagtc tcaaggtoct cctctatgtg 350  
 acaaccatgt gaatggggag tggatccact tcacgggcat ggcgaggat 400  
 gccatgcta ccttctgcat accagaaaac cactgtggaa cccacgcacc 450  
 tgtctggctc aatggcagcc acccctaga aggcgacggc attgtgcaac 500  
 gccaggcttg tgccagcttc aatgggaact gctgtctctg gaacaccacg 550  
 gtggaagtca aggcttgccc tggaggctac tatgtgtatc gtctgaccaa 600  
 gccacgctc tgcttcacg tctactgtgg tcatttttat gacatctgag 650  
 acgaggactg ccatggcagc tgctcagata ccagcgagtg cacatgcgct 700  
 ccaggaactg tgctaggccc tgacaggcag acatgctttg atgaaaatga 750  
 atgtgagcaa aacaacggtg gctgcagtg gatctgtgtg aacctcaaaa 800  
 actcctaccg ctgtgagtg ggggttgccc gtgtgctaag aagtgatggc 850  
 aagacttggtg aagacgttga aggatgccac aataacaatg gtggctgcag 900  
 ccactcttgc cttggatctg agaaaggcta ccagtgtgaa tgtccccggg 950  
 gcctggtgct gtctgaggat aaccacactt gccaaagtccc tgtgttgtgc 1000  
 aaatcaaatg ccattgaagt gaacatcccc aggagctgg ttggtggcct 1050  
 ggagctcttc ctgaccaaca cctcctgccg aggagtgtcc aacggcacc 1100  
 atgtcaacat cctcttctct ctcaagacat gtggtacagt ggtcgatgtg 1150  
 gtgaatgaca agattgtggc cagcaacctc gtgacaggtc taccgaagca 1200  
 gaccccgggg agcagcgggg acttcatcat ccgaaccagc aagctgctga 1250  
 tcccggtgac ctgcgagttt ccacgcctgt acaccatttc tgaaggatac 1300  
 gttcccaacc ttcgaaactc cccactggaa atcatgagcc gaaatcatgg 1350  
 gatcttcca ttactcttg agatcttcaa ggacaatgag tttgaagagc 1400  
 cttaccggga agctctgccc accctcaagc ttcgtgactc cctctacttt 1450  
 ggcatgagc ccgtggtgca cgtgagcggc ttggaaagct tgggtggagag 1500  
 ctgctttgcc accccacct ccaagatcga cgaggctctg aaatactacc 1550  
 tcacccggga tggctgtgtt tcagatgact cggtaaagca gtacacatcc 1600

cgggatcacc tagcaaagca cttccaggtc cctgtcttca agtttgtggg 1650  
 caaagaccac aaggaagtgt ttctgcactg ccgggttctt gtctgtggag 1700  
 tgttggaaga gcgttccgcg tgtgccagg gttgccaccg gcgaatgcgt 1750  
 cgtggggcag gaggagagga ctacagccgt ctacagggcc agacgctaac 1800  
 aggcggcccg atccgcactg actgggagga ctagtctgta gccatacctc 1850  
 gagtccctgc attggacggc tctgctcttt ggagcttctc cccccaccgc 1900  
 cctctaagaa catctgccaa cagctgggtt cagacttcac actgtgagtt 1950  
 cagactccca gcaccaactc actctgattc tgggtccattc agtgggcaca 2000  
 ggtcacagca ctgctgaaca atgtggcctg ggtgggggtt catctttcta 2050  
 ggggtgaaaa ctaaactgtc caccagaaa gacactcacc ccatttccct 2100  
 catttctttc ctacacttaa atacctgtg tatggtgcaa tcagaccaca 2150  
 aaatcagaag ctgggtataa tatttcaagt taaaaccct agaaaaatta 2200  
 aacagttact gaaattatga cttaaatacc caatgactcc ttaaatatgt 2250  
 aaattatagt tataccttga aatttcaatt caaatgcaga ctaattatag 2300  
 ggaatttgga agtgtatcaa taaaacagta tataatttt 2339

<210> 110

<211> 545

<212> PRT

<213> Homo Sapien

<400> 110

Met	Pro	Pro	Phe	Leu	Leu	Leu	Thr	Cys	Leu	Phe	Ile	Thr	Gly	Thr
1				5				10					15	
Ser	Val	Ser	Pro	Val	Ala	Leu	Asp	Pro	Cys	Ser	Ala	Tyr	Ile	Ser
				20				25					30	
Leu	Asn	Glu	Pro	Trp	Arg	Asn	Thr	Asp	His	Gln	Leu	Asp	Glu	Ser
				35				40					45	
Gln	Gly	Pro	Pro	Leu	Cys	Asp	Asn	His	Val	Asn	Gly	Glu	Trp	Tyr
				50				55					60	
His	Phe	Thr	Gly	Met	Ala	Gly	Asp	Ala	Met	Pro	Thr	Phe	Cys	Ile
				65				70					75	
Pro	Glu	Asn	His	Cys	Gly	Thr	His	Ala	Pro	Val	Trp	Leu	Asn	Gly
				80				85					90	
Ser	His	Pro	Leu	Glu	Gly	Asp	Gly	Ile	Val	Gln	Arg	Gln	Ala	Cys
				95				100					105	



Ala Ser Phe Asn	Gly Asn Cys Cys Leu	Trp Asn Thr Thr Val	Glu
	110	115	120
Val Lys Ala Cys	Pro Gly Gly Tyr Tyr	Val Tyr Arg Leu Thr	Lys
	125	130	135
Pro Ser Val Cys	Phe His Val Tyr Cys	Gly His Phe Tyr Asp	Ile
	140	145	150
Cys Asp Glu Asp	Cys His Gly Ser Cys	Ser Asp Thr Ser Glu	Cys
	155	160	165
Thr Cys Ala Pro	Gly Thr Val Leu Gly	Pro Asp Arg Gln Thr	Cys
	170	175	180
Phe Asp Glu Asn	Glu Cys Glu Gln Asn	Asn Gly Gly Cys Ser	Glu
	185	190	195
Ile Cys Val Asn	Leu Lys Asn Ser Tyr	Arg Cys Glu Cys Gly	Val
	200	205	210
Gly Arg Val Leu	Arg Ser Asp Gly Lys	Thr Cys Glu Asp Val	Glu
	215	220	225
Gly Cys His Asn	Asn Asn Gly Gly Cys	Ser His Ser Cys Leu	Gly
	230	235	240
Ser Glu Lys Gly	Tyr Gln Cys Glu Cys	Pro Arg Gly Leu Val	Leu
	245	250	255
Ser Glu Asp Asn	His Thr Cys Gln Val	Pro Val Leu Cys Lys	Ser
	260	265	270
Asn Ala Ile Glu	Val Asn Ile Pro Arg	Glu Leu Val Gly Gly	Leu
	275	280	285
Glu Leu Phe Leu	Thr Asn Thr Ser Cys	Arg Gly Val Ser Asn	Gly
	290	295	300
Thr His Val Asn	Ile Leu Phe Ser Leu	Lys Thr Cys Gly Thr	Val
	305	310	315
Val Asp Val Val	Asn Asp Lys Ile Val	Ala Ser Asn Leu Val	Thr
	320	325	330
Gly Leu Pro Lys	Gln Thr Pro Gly Ser	Ser Gly Asp Phe Ile	Ile
	335	340	345
Arg Thr Ser Lys	Leu Leu Ile Pro Val	Thr Cys Glu Phe Pro	Arg
	350	355	360
Leu Tyr Thr Ile	Ser Glu Gly Tyr Val	Pro Asn Leu Arg Asn	Ser
	365	370	375
Pro Leu Glu Ile	Met Ser Arg Asn His	Gly Ile Phe Pro Phe	Thr
	380	385	390

Leu	Glu	Ile	Phe	Lys	Asp	Asn	Glu	Phe	Glu	Glu	Pro	Tyr	Arg	Glu	
				395					400					405	
Ala	Leu	Pro	Thr	Leu	Lys	Leu	Arg	Asp	Ser	Leu	Tyr	Phe	Gly	Ile	
				410					415					420	
Glu	Pro	Val	Val	His	Val	Ser	Gly	Leu	Glu	Ser	Leu	Val	Glu	Ser	
				425					430					435	
Cys	Phe	Ala	Thr	Pro	Thr	Ser	Lys	Ile	Asp	Glu	Val	Leu	Lys	Tyr	
				440					445					450	
Tyr	Leu	Ile	Arg	Asp	Gly	Cys	Val	Ser	Asp	Asp	Ser	Val	Lys	Gln	
				455					460					465	
Tyr	Thr	Ser	Arg	Asp	His	Leu	Ala	Lys	His	Phe	Gln	Val	Pro	Val	
				470					475					480	
Phe	Lys	Phe	Val	Gly	Lys	Asp	His	Lys	Glu	Val	Phe	Leu	His	Cys	
				485					490					495	
Arg	Val	Leu	Val	Cys	Gly	Val	Leu	Asp	Glu	Arg	Ser	Arg	Cys	Ala	
				500					505					510	
Gln	Gly	Cys	His	Arg	Arg	Met	Arg	Arg	Gly	Ala	Gly	Gly	Glu	Asp	
				515					520					525	
Ser	Ala	Gly	Leu	Gln	Gly	Gln	Thr	Leu	Thr	Gly	Gly	Pro	Ile	Arg	
				530					535					540	
Ile	Asp	Trp	Glu	Asp											
				545											

<210> 111  
 <211> 2063  
 <212> DNA  
 <213> Homo Sapien

<400> 111  
 gagagaggca gcagcttgct cagcggacaa ggatgctggg cgtgaggac 50  
 caaggcctgc cctgcactcg ggccctctcc agccagtgtc gaccagggac 100  
 ttctgacctg ctggccagcc aggacctgtg tggggaggcc ctctgctgc 150  
 cttgggggtga caatctcagc tccaggctac agggagaccg ggaggatcac 200  
 agagccagca tgttacagga tcctgacagt gatcaacctc tgaacagcct 250  
 cgatgtcaaa cccctgcgca aaccccgatat ccccatggag accttcagaa 300  
 aggtggggat ccccatcatc atagcactac tgagcctggc gagtatcatc 350  
 attgtggttg tcctcatcaa ggtgattctg gataaatact acttcctctg 400  
 cgggcagcct ctccatttca tcccaggagaa gcagctgtgt gacggagagc 450

tggactgtcc cttgggggag gacgaggagc actgtgtcaa gagcttcccc 500  
 gaagggcctg cagtggcagt ccgcctctcc aaggaccgat ccacactgca 550  
 ggtgctggac tcggccacag ggaactgggt ctctgcctgt ttcgacaact 600  
 tcacagaagc tctcgctgag acagcctgta ggcagatggg ctacagcaga 650  
 gctgtggaga ttggcccaga ccaggatctg gatgttggtg aaatcacaga 700  
 aaacagccag gagcttcgca tgcggaactc aagtgggccc tgtctctcag 750  
 gctccctggg ctccctgcac tgtcttgctt gtgggaagag cctgaagacc 800  
 ccccggtgtg tgggtgggga ggaggcctct gtggattctt ggccttggca 850  
 ggtcagcatc cagtacgaca aacagcacgt ctgtggaggg agcatcctgg 900  
 acccccactg ggtcctcacg gcagcccact gcttcaggaa acataccgat 950  
 gtgttcaact ggaaggtgcg ggcaggetca gacaaactgg gcagcttccc 1000  
 atccctggct gtggccaaga tcatcatcat tgaattcaac cccatgtacc 1050  
 ccaaagacaa tgacatcgcc ctcatgaagc tgcagttccc actcactttc 1100  
 tcaggcacag tcaggcccat ctgtctgccc ttctttgatg aggagctcac 1150  
 tccagccacc ccactctgga tcattggatg gggctttacg aagcagaatg 1200  
 gaggggaagat gtctgacata ctgctgcagg cgtcagtcca ggtcattgac 1250  
 agcacacggt gcaatgcaga cgatgcgtac cagggggaag tcaccgagaa 1300  
 gatgatgtgt gcaggcatcc cggaaggggg tgtggacacc tgccagggtg 1350  
 acagtgggtg gccctgatg taccaatctg accagtggca tgtgggtggg 1400  
 atcgtagct ggggctatg ctgcgggggc ccgagcacc caggagtata 1450  
 caccaaggtc tcagcctatc tcaactggat ctacaatgtc tggaaggctg 1500  
 agctgtaatg ctgctgcccc tttgcagtgc tgggagccgc ttccttctg 1550  
 cctgcccac ctggggatcc ccaaagtca gacacagagc aagagtcccc 1600  
 ttgggtacac ccctctgccc acagcctcag cttttcttg agcagcaaag 1650  
 ggctcaatt cctgtaagag accctcgag cccagaggcg cccagaggaa 1700  
 gtcagcagcc ctagctcggc cacacttggg gctcccagca tcccaggag 1750  
 agacacagcc cactgaacaa ggtctcagg gtattgctaa gccaagaagg 1800  
 aactttcca cactactgaa tggaagcagg ctgtcttgta aaagcccaga 1850  
 tcactgtggg ctggagagga gaaggaaagg gtctgcgcca gccctgtccg 1900

tcttcaccca tccccaagcc tactagagca agaaaccagt tgtaatataa 1950  
aatgcactgc cctactgttg gtatgactac cgttacctac tgttgtcatt 2000  
gttattacag ctatggccac tattattaaa gagctgtgta acatctctgg 2050  
caaaaaaaaaaaa aaa 2063

<210> 112  
<211> 432  
<212> PRT  
<213> Homo Sapien

<400> 112  
Met Leu Gln Asp Pro Asp Ser Asp Gln Pro Leu Asn Ser Leu Asp  
1 5 10 15  
Val Lys Pro Leu Arg Lys Pro Arg Ile Pro Met Glu Thr Phe Arg  
20 25 30  
Lys Val Gly Ile Pro Ile Ile Ile Ala Leu Leu Ser Leu Ala Ser  
35 40 45  
Ile Ile Ile Val Val Val Leu Ile Lys Val Ile Leu Asp Lys Tyr  
50 55 60  
Tyr Phe Leu Cys Gly Gln Pro Leu His Phe Ile Pro Arg Lys Gln  
65 70 75  
Leu Cys Asp Gly Glu Leu Asp Cys Pro Leu Gly Glu Asp Glu Glu  
80 85 90  
His Cys Val Lys Ser Phe Pro Glu Gly Pro Ala Val Ala Val Arg  
95 100 105  
Leu Ser Lys Asp Arg Ser Thr Leu Gln Val Leu Asp Ser Ala Thr  
110 115 120  
Gly Asn Trp Phe Ser Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu  
125 130 135  
Ala Glu Thr Ala Cys Arg Gln Met Gly Tyr Ser Arg Ala Val Glu  
140 145 150  
Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr Glu Asn  
155 160 165  
Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu Ser  
170 175 180  
Gly Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Lys Ser Leu  
185 190 195  
Lys Thr Pro Arg Val Val Gly Gly Glu Glu Ala Ser Val Asp Ser  
200 205 210

Trp	Pro	Trp	Gln	Val	Ser	Ile	Gln	Tyr	Asp	Lys	Gln	His	Val	Cys	215	220	225
Gly	Gly	Ser	Ile	Leu	Asp	Pro	His	Trp	Val	Leu	Thr	Ala	Ala	His	230	235	240
Cys	Phe	Arg	Lys	His	Thr	Asp	Val	Phe	Asn	Trp	Lys	Val	Arg	Ala	245	250	255
Gly	Ser	Asp	Lys	Leu	Gly	Ser	Phe	Pro	Ser	Leu	Ala	Val	Ala	Lys	260	265	270
Ile	Ile	Ile	Ile	Glu	Phe	Asn	Pro	Met	Tyr	Pro	Lys	Asp	Asn	Asp	275	280	285
Ile	Ala	Leu	Met	Lys	Leu	Gln	Phe	Pro	Leu	Thr	Phe	Ser	Gly	Thr	290	295	300
Val	Arg	Pro	Ile	Cys	Leu	Pro	Phe	Phe	Asp	Glu	Glu	Leu	Thr	Pro	305	310	315
Ala	Thr	Pro	Leu	Trp	Ile	Ile	Gly	Trp	Gly	Phe	Thr	Lys	Gln	Asn	320	325	330
Gly	Gly	Lys	Met	Ser	Asp	Ile	Leu	Leu	Gln	Ala	Ser	Val	Gln	Val	335	340	345
Ile	Asp	Ser	Thr	Arg	Cys	Asn	Ala	Asp	Asp	Ala	Tyr	Gln	Gly	Glu	350	355	360
Val	Thr	Glu	Lys	Met	Met	Cys	Ala	Gly	Ile	Pro	Glu	Gly	Gly	Val	365	370	375
Asp	Thr	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Met	Tyr	Gln	Ser	380	385	390
Asp	Gln	Trp	His	Val	Val	Gly	Ile	Val	Ser	Trp	Gly	Tyr	Gly	Cys	395	400	405
Gly	Gly	Pro	Ser	Thr	Pro	Gly	Val	Tyr	Thr	Lys	Val	Ser	Ala	Tyr	410	415	420
Leu	Asn	Trp	Ile	Tyr	Asn	Val	Trp	Lys	Ala	Glu	Leu				425	430	

<210> 113  
 <211> 1768  
 <212> DNA  
 <213> Homo Sapien

<400> 113  
 ggctggactg gaactcctgg tcccaagtga tccacccgcc tcagcctccc 50  
 aagggtgctgt gattataggt gtaagccacc gtgtctggcc tctgaacaac 100  
 tttttcagca actaaaaaag ccacaggagt tgaactgcta ggattctgac 150

tatgctgtgg tggctagtgc tctactcct acctacatta aaatctgttt 200  
 tttgttctct tgtaactagc ctttaccttc ctaacacaga ggatctgtca 250  
 ctgtggctct ggcccaaacc tgaccttcac tctggaacga gaacagaggt 300  
 ttctaccac accgtccct cgaagccggg gacagcctca ccttgctggc 350  
 ctctcgctgg agcagtggcc tcaccaactg tctcacgtct ggaggcactg 400  
 actcgggcag tgcaggtagc tgagcctctt ggtagctgcg gctttcaagg 450  
 tgggccttgc cctggccgta gaagggattg acaagccga agatttcata 500  
 ggcatggct cccactgccc aggcacagc cttgctgtag tcaatcactg 550  
 ccctggggcc aggacgggc gtggacacct gctcagaagc agtgggtgag 600  
 acatcacgct gcccgccat ctaacctttt catgtcctgc acatcacctg 650  
 atccatggc taatctgaac tctgtcccaa ggaaccaga gcttgagtga 700  
 gctgtggctc agaccagaa ggggtctgct tagaccacct ggtttatgtg 750  
 acaggacttg cattctcctg gaacatgagg gaacgccga ggaaagcaa 800  
 gtggcagga aggaacttgt gccaaattat gggtcagaaa agatggaggt 850  
 gttgggttat cacaaggcat cgagtctcct gcattcagtg gacatgtggg 900  
 ggaagggtg ccgatggcg atgacacact cgggactcac ctctggggcc 950  
 atcagacagc cgtttccgc ccgatccag taccagctgc tgaagggcaa 1000  
 ctgcaggccg atgctctcat cagccaggca gcagcaaaa tctgcgatca 1050  
 ccagccagg gcagccgtct gggaaggagc aagcaaagt accatttctc 1100  
 ctcccctcct tccctctgag aggcctcct atgtccctac taaagccacc 1150  
 agcaagacat agctgacagg ggctaattgg tcagtgttg cccaggaggt 1200  
 cagcaaggcc tgagagctga tcagaaggc ctgctgtgcg aacacgaaa 1250  
 tgcctccagt aagcacaggc tgcaaaatcc ccaggcaaag gactgtgtgg 1300  
 ctcaatttaa atcatgttct agtaattgga gctgtccca agaccaaagg 1350  
 agctagagct tggttcaa atgatccaag ggcccttata cccaggaga 1400  
 ctttgatttg aatttgaaac cccaaatcca aacctaagaa ccagggtgcat 1450  
 taagaatcag ttattgccg gtgtggtggc ctgtaatgcc aacattttgg 1500  
 gaggccgagg cgggtagatc acctgaggtc aggagttcaa gaccagcctg 1550  
 gccaatagg tgaaaccct gtctctacta aaaatacaaa aaaactagcc 1600

aggcatggtg gtgtgtgcct gtatcccagc tactcgggag gctgagacag 1650  
gagaattact tgaacctggg aggtgaagga ggctgagaca ggagaatcac 1700  
ttcagcctga gcaacacagc gagactctgt ctcagaaaaa ataaaaaaag 1750  
aattatggtt atttgtaa 1768

<210> 114  
<211> 109  
<212> PRT  
<213> Homo Sapien

<400> 114  
Met Leu Trp Trp Leu Val Leu Leu Leu Leu Pro Thr Leu Lys Ser  
1 5 10 15  
Val Phe Cys Ser Leu Val Thr Ser Leu Tyr Leu Pro Asn Thr Glu  
20 25 30  
Asp Leu Ser Leu Trp Leu Trp Pro Lys Pro Asp Leu His Ser Gly  
35 40 45  
Thr Arg Thr Glu Val Ser Thr His Thr Val Pro Ser Lys Pro Gly  
50 55 60  
Thr Ala Ser Pro Cys Trp Pro Leu Ala Gly Ala Val Pro Ser Pro  
65 70 75  
Thr Val Ser Arg Leu Glu Ala Leu Thr Arg Ala Val Gln Val Ala  
80 85 90  
Glu Pro Leu Gly Ser Cys Gly Phe Gln Gly Gly Pro Cys Pro Gly  
95 100 105  
Arg Arg Arg Asp

<210> 115  
<211> 1197  
<212> DNA  
<213> Homo Sapien

<400> 115  
cagcagtggc ctctcagtc tctcaaagca aggaaagagt actgtgtgct 50  
gagagaccat ggcaaagaat cctccagaga attgtgaaga ctgtcacatt 100  
ctaaatgcag aagcttttaa atccaagaaa atatgtaaat cacttaagat 150  
ttgtggactg gtgttttgta tcctggccct aactctaatt gtctgtttt 200  
gggggagcaa gcacttctgg ccggaggtag ccaaaaaagc ctatgacatg 250  
gagcacactt tctacagcaa tggagagaag aagaagattt acatggaaat 300  
tgatcctgtg accagaactg aaatattcag aagcggaaat ggcaactgatg 350

aaacattgga agtgcacgac tttaaaaacg gatacactgg catctacttc 400  
 gtgggtcttc aaaaatgttt tatcaaaact cagattaaag tgattcctga 450  
 attttctgaa ccagaagagg aaatagatga gaatgaagaa attaccacaa 500  
 ctttctttga acagtcagtg atttgggtcc cagcagaaaa gcctattgaa 550  
 aaccgagatt ttcttaaaaa ttccaaaatt ctggagattt gtgataacgt 600  
 gaccatgtat tggatcaatc ccactctaata atcagtttct gagttacaag 650  
 actttgagga ggagggagaa gatcttcact ttcttgccaa cgaaaaaaaa 700  
 gggattgaac aaaatgaaca gtgggtgggc cctcaagtga aagtagagaa 750  
 gaccgcgtcac gccagacaag caagtgagga agaacttcca ataatgact 800  
 atactgaaaa tggaatagaa tttgatccca tgctggatga gagagggttat 850  
 tgttgatattt actgccgtcg aggcaaccgc tattgccgcc gcgtctgtga 900  
 acctttacta ggctactacc catatccata ctgctaccaa ggaggacgag 950  
 tcatctgtcg tgtcatcatg ccttgtaact ggtgggtggc ccgcatgctg 1000  
 gggaggggtct aataggaggt ttgagctcaa atgcttaaac tgctggcaac 1050  
 atataataaa tgcattgctat tcaatgaatt tctgcctatg aggcattctg 1100  
 cccttggtag ccagctctcc agaattactt gtaggtaatt cctctcttca 1150  
 tgttctaata aacttctaca ttatcaccaa aaaaaaaaaa aaaaaaa 1197

<210> 116

<211> 317

<212> PRT

<213> Homo Sapien

<400> 116

Met	Ala	Lys	Asn	Pro	Pro	Glu	Asn	Cys	Glu	Asp	Cys	His	Ile	Leu
1				5					10					15
Asn	Ala	Glu	Ala	Phe	Lys	Ser	Lys	Lys	Ile	Cys	Lys	Ser	Leu	Lys
				20					25					30
Ile	Cys	Gly	Leu	Val	Phe	Gly	Ile	Leu	Ala	Leu	Thr	Leu	Ile	Val
				35					40					45
Leu	Phe	Trp	Gly	Ser	Lys	His	Phe	Trp	Pro	Glu	Val	Pro	Lys	Lys
				50					55					60
Ala	Tyr	Asp	Met	Glu	His	Thr	Phe	Tyr	Ser	Asn	Gly	Glu	Lys	Lys
				65					70					75
Lys	Ile	Tyr	Met	Glu	Ile	Asp	Pro	Val	Thr	Arg	Thr	Glu	Ile	Phe



80					85					90				
Arg	Ser	Gly	Asn	Gly	Thr	Asp	Glu	Thr	Leu	Glu	Val	His	Asp	Phe
				95					100					105
Lys	Asn	Gly	Tyr	Thr	Gly	Ile	Tyr	Phe	Val	Gly	Leu	Gln	Lys	Cys
				110					115					120
Phe	Ile	Lys	Thr	Gln	Ile	Lys	Val	Ile	Pro	Glu	Phe	Ser	Glu	Pro
				125					130					135
Glu	Glu	Glu	Ile	Asp	Glu	Asn	Glu	Glu	Ile	Thr	Thr	Thr	Phe	Phe
				140					145					150
Glu	Gln	Ser	Val	Ile	Trp	Val	Pro	Ala	Glu	Lys	Pro	Ile	Glu	Asn
				155					160					165
Arg	Asp	Phe	Leu	Lys	Asn	Ser	Lys	Ile	Leu	Glu	Ile	Cys	Asp	Asn
				170					175					180
Val	Thr	Met	Tyr	Trp	Ile	Asn	Pro	Thr	Leu	Ile	Ser	Val	Ser	Glu
				185					190					195
Leu	Gln	Asp	Phe	Glu	Glu	Glu	Gly	Glu	Asp	Leu	His	Phe	Pro	Ala
				200					205					210
Asn	Glu	Lys	Lys	Gly	Ile	Glu	Gln	Asn	Glu	Gln	Trp	Val	Val	Pro
				215					220					225
Gln	Val	Lys	Val	Glu	Lys	Thr	Arg	His	Ala	Arg	Gln	Ala	Ser	Glu
				230					235					240
Glu	Glu	Leu	Pro	Ile	Asn	Asp	Tyr	Thr	Glu	Asn	Gly	Ile	Glu	Phe
				245					250					255
Asp	Pro	Met	Leu	Asp	Glu	Arg	Gly	Tyr	Cys	Cys	Ile	Tyr	Cys	Arg
				260					265					270
Arg	Gly	Asn	Arg	Tyr	Cys	Arg	Arg	Val	Cys	Glu	Pro	Leu	Leu	Gly
				275					280					285
Tyr	Tyr	Pro	Tyr	Pro	Tyr	Cys	Tyr	Gln	Gly	Gly	Arg	Val	Ile	Cys
				290					295					300
Arg	Val	Ile	Met	Pro	Cys	Asn	Trp	Trp	Val	Ala	Arg	Met	Leu	Gly
				305					310					315

Arg Val

<210> 117

<211> 2121

<212> DNA

<213> Homo Sapien

<400> 117

gagctccct caggagcgcg ttagcttcac accttcggca gcaggagggc 50

ggcagcttct cgcaggcggc agggcgggcg gccaggatca tgtccaccac 100  
cacatgccaa gtggtggcgt tcctcctgtc catcctgggg ctggccggct 150  
gcatcgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac 200  
aaccctgtca cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt 250  
gaggcagagt tcaggcttca ccgaatgcag gccctatttc accatcctgg 300  
gacttccagc catgctgcag gcagtgcgag ccctgatgat cgtaggcatc 350  
gtcctgggtg ccattggcct cctggatatc atctttgccc tgaaatgcat 400  
ccgcattggc agcatggagg actctgccaa agccaacatg aactgacct 450  
ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct 500  
gtgtttgcc aatgctggt gactaacttc tggatgtcca cagctaacat 550  
gtacaccggc atgggtggga tgggtgcagac tgttcagacc aggtacacat 600  
ttggtgcggc tctgttcgtg ggctgggtcg ctggaggcct cacactaatt 650  
gggggtgtga tgatgtgcat cgctgccgg ggcctggcac cagaagaaac 700  
caactacaaa gccgtttctt atcatgcctc aggccacagt gttgcctaca 750  
agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac 800  
aagaagatat acgatggagg tgcccgaca gaggacgagg tacaatctta 850  
tccttccaag cagactatg tgtaatgtc taagacctct cagcacgggc 900  
ggaagaaact cccggagagc tcacccaaaa aacaaggaga tcccatctag 950  
atttcttctt gcttttgact cacagctgga agttagaaaa gcctcgattt 1000  
catctttgga gaggccaaat ggtcttagcc tcagtctctg tctctaaata 1050  
ttccaccata aaacagctga gttatttatg aattagaggc tatagctcac 1100  
atthtcaatc ctctatttct ttttttaaata ataactttct actctgatga 1150  
gagaatgtgg ttttaatctc tctctcacat tttgatgatt tagacagact 1200  
ccccctcttc ctctagtca ataaacccat tgatgatcta tttccagct 1250  
tatccccaag aaaacttttg aaaggaaaga gtagacccaa agatgttatt 1300  
ttctgctgtt tgaattttgt ctccccaccc ccaacttggc tagtaataaa 1350  
cacttactga agaagaagca ataagagaaa gatatttgta atctctccag 1400  
cccatgatct cggttttctt aactgtgat cttaaaagtt accaaaccaa 1450

agtcattttc agtttgaggc aaccaaacct ttctactgct gttgacatct 1500  
 tcttattaca gcaacacccat tctaggagtt tcttgagctc tccactggag 1550  
 tcctctttct gtcgcggggtc agaaattgtc cctagatgaa tgagaaaatt 1600  
 atttttttta atttaagtcc taaatatagt taaaataaat aatgttttag 1650  
 taaaatgata cactatctct gtgaaatagc ctcacccta catgtggata 1700  
 gaaggaaatg aaaaaataat tgctttgaca ttgtctatat ggtactttgt 1750  
 aaagtcatgc ttaagtacaa attccatgaa aagctcacac ctgtaatcct 1800  
 agcactttgg gaggctgagg aggaaggatc acttgagccc agaagttcga 1850  
 gactagcctg ggcaacatgg agaagccctg tctctacaaa atacagagag 1900  
 aaaaaatcag ccagtcatgg tggcatacac ctgtagtccc agcattccgg 1950  
 gaggctgagg tgggaggatc acttgagccc agggagggttg gggctgcagt 2000  
 gagccatgat cacaccactg cactccagcc aggtgacata gcgagatcct 2050  
 gtctaaaaaa ataaaaaata aataatggaa cacagcaagt cctaggaagt 2100  
 aggttaaaac taattcttta a 2121

<210> 118  
 <211> 261  
 <212> PRT  
 <213> Homo Sapien

<400> 118  
 Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile  
 1 5 10 15  
 Leu Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp  
 20 25 30  
 Ser Thr Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln  
 35 40 45  
 Tyr Glu Gly Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe  
 50 55 60  
 Thr Glu Cys Arg Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met  
 65 70 75  
 Leu Gln Ala Val Arg Ala Leu Met Ile Val Gly Ile Val Leu Gly  
 80 85 90  
 Ala Ile Gly Leu Leu Val Ser Ile Phe Ala Leu Lys Cys Ile Arg  
 95 100 105  
 Ile Gly Ser Met Glu Asp Ser Ala Lys Ala Asn Met Thr Leu Thr  
 110 115 120

Ser Gly Ile Met Phe Ile Val Ser Gly Leu Cys Ala Ile Ala Gly		
125	130	135
Val Ser Val Phe Ala Asn Met Leu Val Thr Asn Phe Trp Met Ser		
140	145	150
Thr Ala Asn Met Tyr Thr Gly Met Gly Gly Met Val Gln Thr Val		
155	160	165
Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe Val Gly Trp Val		
170	175	180
Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met Cys Ile Ala		
185	190	195
Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala Val Ser		
200	205	210
Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly Phe		
215	220	225
Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile		
230	235	240
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro		
245	250	255
Ser Lys His Asp Tyr Val		
260		

<210> 119  
 <211> 2010  
 <212> DNA  
 <213> Homo Sapien

<400> 119  
 ggaaaaactg ttctcttctg tggcacagag aaccctgctt caaagcagaa 50  
 gtagcagttc cggagtccag ctggctaaaa ctcatcccag aggataatgg 100  
 caacccatgc cttagaaatc gctgggctgt ttcttggtgg tgttggaatg 150  
 gtgggcacag tggctgtcac tgtcatgcct cagtggagag tgtcggcctt 200  
 cattgaaaac aacatcgtgg tttttgaaaa cttctgggaa ggactgtgga 250  
 tgaattgCGT gaggcaggct aacatcagga tgcagtgcaa aatctatgat 300  
 tccctgctgg ctcttttctcc ggacctacag gcagccagag gactgatgtg 350  
 tgctgcttcc gtgatgtcct tcttggtttt catgatggcc atccttggca 400  
 tgaaatgcac caggtgcacg ggggacaatg agaaggtgaa ggctcacatt 450  
 ctgctgacgg ctggaatcat cttcatcatc acgggcatgg tgggtgctcat 500

ccctgtgagc tggggttgcca atgccatcat cagagatttc tataactcaa 550  
 tagtgaatgt tgcccaaaaa cgtgagcttg gagaagctct ctacttagga 600  
 tggaccacgg cactggtgct gattgttgga ggagctctgt tctgctgcgt 650  
 tttttgttgc aacgaaaaga gcagtagcta cagatactcg ataccttccc 700  
 atcgcacaa ccaaaaaagt tatcacaccg gaaagaagtc accgagcgtc 750  
 tactccagaa gtcagtatgt gtagttgtgt atgttttttt aactttacta 800  
 taaagccatg caaatgacaa aaatctatat tacttttctca aaatggaccc 850  
 caaagaaact ttgatttact gttcttaact gcctaattctt aattacagga 900  
 actgtgcac agctatttat gattctataa gctatttcag cagaatgaga 950  
 tattaaaccc aatgctttga ttgttctaga aagtatagta atttgttttc 1000  
 taagggtggt caagcatcta ctctttttat catttacttc aaaatgacat 1050  
 tgctaaagac tgcattattt tactactgta atttctccac gacatagcat 1100  
 tatgtacata gatgagtgtg acatttatat ctacacataga gacatgctta 1150  
 tatggtttta tttaaaatga aatgccagtc cattacactg aataaataga 1200  
 actcaactat tgctttttcag ggaaatcatg gatagggttg aagaaggtta 1250  
 ctattaattg tttaaaaaca gcttagggat taatgtcctc cattttataat 1300  
 gaagattaaa atgaaggctt taatcagcat tgtaaaggaa attgaatggc 1350  
 tttctgatat gctgtttttt agcctaggag ttagaaatcc taacttcttt 1400  
 atcctcttct cccagagggt ttttttttct tgtgtattaa attaacattt 1450  
 ttaaaacgca gatattttgt caaggggctt tgcattcaaa ctgcttttcc 1500  
 agggctatac tcagaagaaa gataaaagtg tgatctaaga aaaagtgatg 1550  
 gttttaggaa agtgaaaata tttttgtttt tgtatttgaa gaagaatgat 1600  
 gcattttgac aagaaatcat atatgtatgg atatatttta ataagtattt 1650  
 gagtacagac tttgaggttt catcaatata aataaaagag cagaaaaata 1700  
 tgtcttggtt ttcatttgct taccaaaaaa acaacaacaa aaaaagtgtg 1750  
 cctttgagaa cttcacctgc tcctatgtgg gtacctgagt caaaattgtc 1800  
 atttttgttc tgtgaaaaat aaatttcctt cttgtacat ttctgttttag 1850  
 ttttactaaa atctgtaaat actgtatttt tctgtttatt ccaaatttga 1900  
 tgaaactgac aatccaattt gaaagtttgt gtcgacgtct gtctagctta 1950

aatgaatgtg ttctatttgc ttctatacatt tatattaata aattgtacat 2000

ttttctaatt 2010

<210> 120

<211> 225

<212> PRT

<213> Homo Sapien

<400> 120

Met	Ala	Thr	His	Ala	Leu	Glu	Ile	Ala	Gly	Leu	Phe	Leu	Gly	Gly
1				5					10					15

Val	Gly	Met	Val	Gly	Thr	Val	Ala	Val	Thr	Val	Met	Pro	Gln	Trp
				20					25					30

Arg	Val	Ser	Ala	Phe	Ile	Glu	Asn	Asn	Ile	Val	Val	Phe	Glu	Asn
				35					40					45

Phe	Trp	Glu	Gly	Leu	Trp	Met	Asn	Cys	Val	Arg	Gln	Ala	Asn	Ile
				50					55					60

Arg	Met	Gln	Cys	Lys	Ile	Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Ser	Pro
				65					70					75

Asp	Leu	Gln	Ala	Ala	Arg	Gly	Leu	Met	Cys	Ala	Ala	Ser	Val	Met
				80					85					90

Ser	Phe	Leu	Ala	Phe	Met	Met	Ala	Ile	Leu	Gly	Met	Lys	Cys	Thr
				95					100					105

Arg	Cys	Thr	Gly	Asp	Asn	Glu	Lys	Val	Lys	Ala	His	Ile	Leu	Leu
				110					115					120

Thr	Ala	Gly	Ile	Ile	Phe	Ile	Ile	Thr	Gly	Met	Val	Val	Leu	Ile
				125					130					135

Pro	Val	Ser	Trp	Val	Ala	Asn	Ala	Ile	Ile	Arg	Asp	Phe	Tyr	Asn
				140					145					150

Ser	Ile	Val	Asn	Val	Ala	Gln	Lys	Arg	Glu	Leu	Gly	Glu	Ala	Leu
				155					160					165

Tyr	Leu	Gly	Trp	Thr	Thr	Ala	Leu	Val	Leu	Ile	Val	Gly	Gly	Ala
				170					175					180

Leu	Phe	Cys	Cys	Val	Phe	Cys	Cys	Asn	Glu	Lys	Ser	Ser	Ser	Tyr
				185					190					195

Arg	Tyr	Ser	Ile	Pro	Ser	His	Arg	Thr	Thr	Gln	Lys	Ser	Tyr	His
				200					205					210

Thr	Gly	Lys	Lys	Ser	Pro	Ser	Val	Tyr	Ser	Arg	Ser	Gln	Tyr	Val
				215					220					225

<210> 121

<211> 1257  
<212> DNA  
<213> Homo Sapien

<400> 121  
ggagagagggc gcgcgggtga aaggcgcatc gatgcagcct gcggcggcct 50  
cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100  
ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150  
gccccgccgc ctccccgcag cggctccgcg gcctcctgct gctcctgctg 200  
ctgcagctgc ccgcgccgtc gagcgccctc gagatcccca aggggaagca 250  
aaaggcgagc ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300  
gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350  
aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400  
agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacacca 450  
actacaagca gtgttcattg agttcattga attatggcat agatcttggg 500  
aaaattgcgg agtgtacatt tacaagatg cgttcaaata gtgctctaag 550  
agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600  
agcgttggtg tttcacattc aatggagctg aatgttcagg acctcttccc 650  
attgaagcta taatttatcc ggaccaagga agccctgaaa tgaattcaac 700  
aattaatatt catcgcaatt cttctgtgga aggactttgt gaaggaattg 750  
gtgctggatt agtggatggt gctatctggg ttggcacttg ttcagattac 800  
ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850  
tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900  
ttattatgcc ttggaatggt tcacttaaata gacattttta ataagtttat 950  
gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagtg 1000  
tgatttcaca ctgtttttta atctagcatt attcattttg cttcaatcaa 1050  
aagtggtttc aatatttttt ttagttggtt agaatacttt cttcatagtc 1100  
acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150  
ctcttagtat agcattttta aaaaaatata aaagctacca atctttgtac 1200  
aatttgtaaa tgtaagaat tttttttata tctgttaaat aaaaattatt 1250  
tccaaca 1257

<210> 122

<211> 243  
 <212> PRT  
 <213> Homo Sapien

<400> 122

Met	Arg	Pro	Gln	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Arg	Leu	Arg	Gly	1	5	10	15
Leu	Leu	Leu	Leu	Leu	Leu	Leu	Gln	Leu	Pro	Ala	Pro	Ser	Ser	Ala	20	25	30	
Ser	Glu	Ile	Pro	Lys	Gly	Lys	Gln	Lys	Ala	Gln	Leu	Arg	Gln	Arg	35	40	45	
Glu	Val	Val	Asp	Leu	Tyr	Asn	Gly	Met	Cys	Leu	Gln	Gly	Pro	Ala	50	55	60	
Gly	Val	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Asn	Val	Ile	Pro	65	70	75	
Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys	80	85	90	
Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn	95	100	105	
Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu	110	115	120	
Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser	125	130	135	
Ala	Leu	Arg	Val	Leu	Phe	Ser	Gly	Ser	Leu	Arg	Leu	Lys	Cys	Arg	140	145	150	
Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr	Phe	Asn	Gly	Ala	Glu	155	160	165	
Cys	Ser	Gly	Pro	Leu	Pro	Ile	Glu	Ala	Ile	Ile	Tyr	Leu	Asp	Gln	170	175	180	
Gly	Ser	Pro	Glu	Met	Asn	Ser	Thr	Ile	Asn	Ile	His	Arg	Thr	Ser	185	190	195	
Ser	Val	Glu	Gly	Leu	Cys	Glu	Gly	Ile	Gly	Ala	Gly	Leu	Val	Asp	200	205	210	
Val	Ala	Ile	Trp	Val	Gly	Thr	Cys	Ser	Asp	Tyr	Pro	Lys	Gly	Asp	215	220	225	
Ala	Ser	Thr	Gly	Trp	Asn	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu	230	235	240	
Leu	Pro	Lys																

<210> 123



<211> 2379  
<212> DNA  
<213> Homo Sapien

<400> 123  
gctgagcgtg tgcgcggtac ggggctctcc tgccttctgg gctccaacgc 50  
agctctgtgg ctgaactggg tgcctcatcac gggaactgct gggctatgga 100  
atacagatgt ggcagctcag gtagcccca attgcctgga agaatacatc 150  
atgttttttcg ataagaagaa attgtaggat ccagtttttt ttttaaccgc 200  
cccctcccca ccccccaaaa aaactgtaaa gatgcaaaaa cgtaatatcc 250  
atgaagatcc tattacctag gaagattttg atgttttgct gcgaatgcgg 300  
tgttgggatt tatttgttct tggagtgttc tgcgtggctg gcaaagaata 350  
atgttccaaa atcgggtccat ctcccaaggg gtccaatttt tcttctctggg 400  
tgtcagcgag ccctgactca ctacagtgcg gctgacaggg gctgtcatgc 450  
aactggcccc taagccaaag caaaagacct aaggacgacc tttgaacaat 500  
acaaaggatg ggtttcaatg taattaggct actgagcgga tcagctgtag 550  
cactggttat agccccact gtcttactga caatgctttc ttctgccgaa 600  
cgaggatgcc ctaagggctg taggtgtgaa ggcaaaatgg tatattgtga 650  
atctcagaaa ttacaggaga taccctcaag tatactctgct ggttgcttag 700  
gtttgtccct tcgctataac agccttcaaa aacttaagta taatcaattt 750  
aaagggctca accagctcac ctggctatac cttgaccata accatatacag 800  
caatattgac gaaaatgctt ttaatggaat acgcagactc aaagagctga 850  
ttcttagttc caatagaatc tcctattttc ttaacaatac cttcagacct 900  
gtgacaaatt tacggaactt ggatctgtcc tataatcagc tgcattctct 950  
gggatctgaa cagtttcggg gcttgcgga gctgctgagt ttacatttac 1000  
ggtctaactc cctgagaacc atccctgtgc gaatattcca agactgccgc 1050  
aacctggaac ttttggacct gggatataac cggatccgaa gtttagccag 1100  
gaatgtcttt gctggcatga tcagactcaa agaacttcac ctggagcaca 1150  
atcaattttc caagctcaac ctggcccttt ttccaagggt ggtcagcctt 1200  
cagaaccttt acttgcatg gaataaaatc agtgtcatag gacagaccat 1250  
gtcctggacc tggagctcct taaaaggct tgatttatca ggcaatgaga 1300  
tcgaagcttt cagtggacct agtggtttcc agtgtgtccc gaatctgcag 1350

cgctcaacc tggattccaa caagctcaca tttattgggc aagagatttt 1400  
 ggattcttgg atatccctca atgacatcag tcttgctggg aatatatggg 1450  
 aatgcagcag aaatatttgc tcccttgtaa actggctgaa aagttttaaa 1500  
 ggtctaaggg agaatacaat tatctgtgcc agtcccaaag agctgcaagg 1550  
 agtaaatgtg atcgatgcag tgaagaacta cagcatctgt ggcaaaagta 1600  
 ctacagagag gtttgatctg gccagggctc tcccaaagcc gacgtttaag 1650  
 cccaagctcc ccaggccgaa gcatgagagc aaacccctt tgcctccgac 1700  
 ggtgggagcc acagagcccg gccagagac cgatgctgac gccgagcaca 1750  
 tctctttcca taaaatcatc gcgggcagcg tggcgctttt cctgtccgtg 1800  
 ctctcatcc tgctggttat ctacgtgtca tggaagcggg accctgcgag 1850  
 catgaagcag ctgcagcagc gctccctcat gcgaaggcac aggaaaaaga 1900  
 aaagacagtc cctaaagcaa atgactccca gcaccagga attttatgta 1950  
 gattataaac ccaccaacac ggagaccagc gagatgctgc tgaatgggac 2000  
 gggaccctgc acctataaca aatcgggctc caggagtggt gaggtatgaa 2050  
 ccattgtgat aaaaagagct cttaaaagct gggaaataag tgggtgcttta 2100  
 ttgaactctg gtgactatca agggaacgag atgccccccc tccccctccc 2150  
 tctccctctc actttgggtg caagatcctt ccttgtccgt tttagtgcac 2200  
 tcataatact ggtcattttc ctctcataca taatcaaccc attgaaattt 2250  
 aaataccaca atcaatgtga agcttgaact ccggtttaat ataataccta 2300  
 ttgtataaga ccctttactg attccattaa tgtcgcattt gttttaagat 2350  
 aaaacttctt tcataggtaa aaaaaaaaaa 2379

<210> 124  
 <211> 513  
 <212> PRT  
 <213> Homo Sapien

<400> 124  
 Met Gly Phe Asn Val Ile Arg Leu Leu Ser Gly Ser Ala Val Ala  
 1 5 10 15  
 Leu Val Ile Ala Pro Thr Val Leu Leu Thr Met Leu Ser Ser Ala  
 20 25 30  
 Glu Arg Gly Cys Pro Lys Gly Cys Arg Cys Glu Gly Lys Met Val  
 35 40 45

Tyr	Cys	Glu	Ser	Gln	Lys	Leu	Gln	Glu	Ile	Pro	Ser	Ser	Ile	Ser		50	55	60
Ala	Gly	Cys	Leu	Gly	Leu	Ser	Leu	Arg	Tyr	Asn	Ser	Leu	Gln	Lys		65	70	75
Leu	Lys	Tyr	Asn	Gln	Phe	Lys	Gly	Leu	Asn	Gln	Leu	Thr	Trp	Leu		80	85	90
Tyr	Leu	Asp	His	Asn	His	Ile	Ser	Asn	Ile	Asp	Glu	Asn	Ala	Phe		95	100	105
Asn	Gly	Ile	Arg	Arg	Leu	Lys	Glu	Leu	Ile	Leu	Ser	Ser	Asn	Arg		110	115	120
Ile	Ser	Tyr	Phe	Leu	Asn	Asn	Thr	Phe	Arg	Pro	Val	Thr	Asn	Leu		125	130	135
Arg	Asn	Leu	Asp	Leu	Ser	Tyr	Asn	Gln	Leu	His	Ser	Leu	Gly	Ser		140	145	150
Glu	Gln	Phe	Arg	Gly	Leu	Arg	Lys	Leu	Leu	Ser	Leu	His	Leu	Arg		155	160	165
Ser	Asn	Ser	Leu	Arg	Thr	Ile	Pro	Val	Arg	Ile	Phe	Gln	Asp	Cys		170	175	180
Arg	Asn	Leu	Glu	Leu	Leu	Asp	Leu	Gly	Tyr	Asn	Arg	Ile	Arg	Ser		185	190	195
Leu	Ala	Arg	Asn	Val	Phe	Ala	Gly	Met	Ile	Arg	Leu	Lys	Glu	Leu		200	205	210
His	Leu	Glu	His	Asn	Gln	Phe	Ser	Lys	Leu	Asn	Leu	Ala	Leu	Phe		215	220	225
Pro	Arg	Leu	Val	Ser	Leu	Gln	Asn	Leu	Tyr	Leu	Gln	Trp	Asn	Lys		230	235	240
Ile	Ser	Val	Ile	Gly	Gln	Thr	Met	Ser	Trp	Thr	Trp	Ser	Ser	Leu		245	250	255
Gln	Arg	Leu	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Ala	Phe	Ser	Gly		260	265	270
Pro	Ser	Val	Phe	Gln	Cys	Val	Pro	Asn	Leu	Gln	Arg	Leu	Asn	Leu		275	280	285
Asp	Ser	Asn	Lys	Leu	Thr	Phe	Ile	Gly	Gln	Glu	Ile	Leu	Asp	Ser		290	295	300
Trp	Ile	Ser	Leu	Asn	Asp	Ile	Ser	Leu	Ala	Gly	Asn	Ile	Trp	Glu		305	310	315
Cys	Ser	Arg	Asn	Ile	Cys	Ser	Leu	Val	Asn	Trp	Leu	Lys	Ser	Phe		320	325	330

Lys Gly Leu Arg	Glu Asn Thr Ile Ile	Cys Ala Ser Pro Lys Glu	335	340	345
Leu Gln Gly Val	Asn Val Ile Asp Ala Val	Lys Asn Tyr Ser Ile	350	355	360
Cys Gly Lys Ser	Thr Thr Glu Arg Phe	Asp Leu Ala Arg Ala Leu	365	370	375
Pro Lys Pro Thr	Phe Lys Pro Lys Leu	Pro Arg Pro Lys His Glu	380	385	390
Ser Lys Pro Pro	Leu Pro Pro Thr Val	Gly Ala Thr Glu Pro Gly	395	400	405
Pro Glu Thr Asp	Ala Asp Ala Glu His	Ile Ser Phe His Lys Ile	410	415	420
Ile Ala Gly Ser	Val Ala Leu Phe Leu	Ser Val Leu Val Ile Leu	425	430	435
Leu Val Ile Tyr	Val Ser Trp Lys Arg	Tyr Pro Ala Ser Met Lys	440	445	450
Gln Leu Gln Gln	Arg Ser Leu Met Arg	Arg His Arg Lys Lys Lys	455	460	465
Arg Gln Ser Leu	Lys Gln Met Thr Pro	Ser Thr Gln Glu Phe Tyr	470	475	480
Val Asp Tyr Lys	Pro Thr Asn Thr Glu	Thr Ser Glu Met Leu Leu	485	490	495
Asn Gly Thr Gly	Pro Cys Thr Tyr Asn	Lys Ser Gly Ser Arg Glu	500	505	510
Cys Glu Val					

<210> 125  
 <211> 998  
 <212> DNA  
 <213> Homo Sapien

<400> 125  
 ccgttatcgt cttgcgctac tgctgaatgt ccgtcccga ggaggaggag 50  
 aggcttttgc cgctgacca gagatggccc cgagcgagca aattcctact 100  
 gtccggctgc gcggctaccg tggccgagct agcaaccttt cccttgatc 150  
 tcacaaaaac tcgactccaa atgcaaggag aagcagctct tgctcggttg 200  
 ggagacggtg caagagaatc tgccccctat aggggaatgg tgcgcacagc 250  
 cctagggatc attgaagagg aaggctttct aaagcttttg caaggagtga 300

caccgcgcat ttacagacac gtagtgtatt ctggaggtcg aatggtcaca 350  
tatgaacatc tccgagaggt tgtgtttggc aaaagtgaag atgagcatta 400  
tccccttttg aaatcagtca ttggagggat gatggctggt gttattggcc 450  
agtttttagc caatccaact gacctagtga aggttcagat gcaaattggaa 500  
ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca 550  
tgcatttgca aaaatcttag ctgaaggagg aatacgaggg ctttgggcag 600  
gctgggtacc caatatacaa agagcagcac tggatgaatat gggagattta 650  
accacttatg atacagtga acactacttg gtattgaata caccacttga 700  
ggacaatatc atgactcacg gtttatcaag tttatgttct ggactggtag 750  
cttctattct gggaacacca gccgatgtca tcaaaagcag aataatgaat 800  
caaccacgag ataaacaagg aaggggactt ttgtataaat catcgactga 850  
ctgcttgatt caggctgttc aaggtgaagg attcatgagt ctatataaag 900  
gctttttacc atcttggctg agaatgaccc cttggtcaat ggtgttctgg 950  
cttacttatg aaaaaatcag agagatgagt ggagtcagtc cattttta 998

<210> 126  
<211> 323  
<212> PRT  
<213> Homo Sapien

<400> 126  
Met Ser Val Pro Glu Glu Glu Glu Arg Leu Leu Pro Leu Thr Gln  
1 5 10 15  
Arg Trp Pro Arg Ala Ser Lys Phe Leu Leu Ser Gly Cys Ala Ala  
20 25 30  
Thr Val Ala Glu Leu Ala Thr Phe Pro Leu Asp Leu Thr Lys Thr  
35 40 45  
Arg Leu Gln Met Gln Gly Glu Ala Ala Leu Ala Arg Leu Gly Asp  
50 55 60  
Gly Ala Arg Glu Ser Ala Pro Tyr Arg Gly Met Val Arg Thr Ala  
65 70 75  
Leu Gly Ile Ile Glu Glu Glu Gly Phe Leu Lys Leu Trp Gln Gly  
80 85 90  
Val Thr Pro Ala Ile Tyr Arg His Val Val Tyr Ser Gly Gly Arg  
95 100 105  
Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly Lys Ser  
110 115 120

Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly Met		
	125	130 135
Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu		
	140	145 150
Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly		
	155	160 165
Lys Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile		
	170	175 180
Leu Ala Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val Pro		
	185	190 195
Asn Ile Gln Arg Ala Ala Leu Val Asn Met Gly Asp Leu Thr Thr		
	200	205 210
Tyr Asp Thr Val Lys His Tyr Leu Val Leu Asn Thr Pro Leu Glu		
	215	220 225
Asp Asn Ile Met Thr His Gly Leu Ser Ser Leu Cys Ser Gly Leu		
	230	235 240
Val Ala Ser Ile Leu Gly Thr Pro Ala Asp Val Ile Lys Ser Arg		
	245	250 255
Ile Met Asn Gln Pro Arg Asp Lys Gln Gly Arg Gly Leu Leu Tyr		
	260	265 270
Lys Ser Ser Thr Asp Cys Leu Ile Gln Ala Val Gln Gly Glu Gly		
	275	280 285
Phe Met Ser Leu Tyr Lys Gly Phe Leu Pro Ser Trp Leu Arg Met		
	290	295 300
Thr Pro Trp Ser Met Val Phe Trp Leu Thr Tyr Glu Lys Ile Arg		
	305	310 315
Glu Met Ser Gly Val Ser Pro Phe		
	320	

<210> 127  
 <211> 1505  
 <212> DNA  
 <213> Homo Sapien

<400> 127  
 cgcgatcgg acccaagcag gtcggcgggc gcggcaggag agcggccggg 50  
 cgtcagctcc tcgacccccg tgtcgggcta gtccagcgag gcggacgggc 100  
 ggctggtggc catggccagg cccggcatgg agcgggtggc cgaccggctg 150  
 gcgctggtga cgggggcctc ggggggcata ggcgcggccg tggcccgggc 200  
 cctggtccag cagggactga aggtggtggg ctgcgcccgc actgtgggca 250

```

acatcgagga gctggctgct gaatgtaaga gtgcaggcta ccccgaggact 300
ttgatcccct acagatgtga cctatcaaat gaagaggaca tcctctccat 350
gttctcagct atccgtttctc agcacagcgg tgtagacatc tgcatacaaca 400
atgctggctt ggcccggcct gacaccctgc tctcaggcag caccagtggg 450
tggaaggaca tgttcaatgt gaacgtgctg gccctcagca tctgcacacg 500
ggaagcctac cagtccatga aggagcggaa tgtggacgat gggcacatca 550
ttaacatcaa tagcatgtct ggccaccgag tgttaccctt gtctgtgacc 600
catttctata gtgccaccaa gtatgccgtc actgcgctga cagagggact 650
gaggcaagag cttcgggagg ccagaccca catccgagcc acgtgcatct 700
ctccaggtgt ggtggagaca caattgcct tcaaactcca cgacaaggac 750
cctgagaagg cagctgccac ctatgagcaa atgaagtgtc tcaaaccgga 800
ggatgtggcc gaggtgttta tctacgtcct cagcaccccc gcacacatcc 850
agattggaga catccagatg aggccacgg agcaggtgac ctagtgactg 900
tgggagctcc tccttccttc cccacccttc atggcttgcc tcctgcctct 950
ggattttagg tgttgatttc tggatcacgg gataccactt cctgtccaca 1000
ccccgaccag gggctagaaa atttgtttga gatttttata tcattctgtc 1050
aaattgcttc agttgtaaat gtgaaaaatg ggctggggaa aggaggtggg 1100
gtccctaatt gttttacttg ttaacttggt cttgtgcccc tgggcacttg 1150
gcctttgtct gctctcagtg tcttcctttt gacatgggaa aggagttgtg 1200
gccaaaatcc ccatcttctt gcacctcaac gtctgtggct cagggctggg 1250
gtggcagagg gaggccttca ccttatatct gtgttggttat ccagggctcc 1300
agacttcctc ctctgcctgc cccactgcac cctctcccc ttatctatct 1350
ccttctcggc tcccagccc agtcttggtt tcttgtcccc tcctggggtc 1400
atccctccac tctgactctg actatggcag cagaacacca gggcctggcc 1450
cagtggattt catggtgatc attaaaaaag aaaaatcgca accaaaaaaa 1500
aaaaa 1505

```

```

<210> 128
<211> 260
<212> PRT
<213> Homo Sapien

```

<400> 128

Met	Ala	Arg	Pro	Gly	Met	Glu	Arg	Trp	Arg	Asp	Arg	Leu	Ala	Leu	
1				5					10					15	
Val	Thr	Gly	Ala	Ser	Gly	Gly	Ile	Gly	Ala	Ala	Val	Ala	Arg	Ala	
				20					25					30	
Leu	Val	Gln	Gln	Gly	Leu	Lys	Val	Val	Gly	Cys	Ala	Arg	Thr	Val	
				35					40					45	
Gly	Asn	Ile	Glu	Glu	Leu	Ala	Ala	Glu	Cys	Lys	Ser	Ala	Gly	Tyr	
				50					55					60	
Pro	Gly	Thr	Leu	Ile	Pro	Tyr	Arg	Cys	Asp	Leu	Ser	Asn	Glu	Glu	
				65					70					75	
Asp	Ile	Leu	Ser	Met	Phe	Ser	Ala	Ile	Arg	Ser	Gln	His	Ser	Gly	
				80					85					90	
Val	Asp	Ile	Cys	Ile	Asn	Asn	Ala	Gly	Leu	Ala	Arg	Pro	Asp	Thr	
				95					100					105	
Leu	Leu	Ser	Gly	Ser	Thr	Ser	Gly	Trp	Lys	Asp	Met	Phe	Asn	Val	
				110					115					120	
Asn	Val	Leu	Ala	Leu	Ser	Ile	Cys	Thr	Arg	Glu	Ala	Tyr	Gln	Ser	
				125					130					135	
Met	Lys	Glu	Arg	Asn	Val	Asp	Asp	Gly	His	Ile	Ile	Asn	Ile	Asn	
				140					145					150	
Ser	Met	Ser	Gly	His	Arg	Val	Leu	Pro	Leu	Ser	Val	Thr	His	Phe	
				155					160					165	
Tyr	Ser	Ala	Thr	Lys	Tyr	Ala	Val	Thr	Ala	Leu	Thr	Glu	Gly	Leu	
				170					175					180	
Arg	Gln	Glu	Leu	Arg	Glu	Ala	Gln	Thr	His	Ile	Arg	Ala	Thr	Cys	
				185					190					195	
Ile	Ser	Pro	Gly	Val	Val	Glu	Thr	Gln	Phe	Ala	Phe	Lys	Leu	His	
				200					205					210	
Asp	Lys	Asp	Pro	Glu	Lys	Ala	Ala	Ala	Thr	Tyr	Glu	Gln	Met	Lys	
				215					220					225	
Cys	Leu	Lys	Pro	Glu	Asp	Val	Ala	Glu	Ala	Val	Ile	Tyr	Val	Leu	
				230					235					240	
Ser	Thr	Pro	Ala	His	Ile	Gln	Ile	Gly	Asp	Ile	Gln	Met	Arg	Pro	
				245					250					255	
Thr	Glu	Gln	Val	Thr											
				260											

<210> 129

<211> 1177

<212> DNA



<213> Homo Sapien

<400> 129

```
aacttctaca tgggcctcct gctgctggtg ctcttctca gcctcctgcc 50
ggtggcctac accatcatgt ccctcccacc ctcccttgac tgcggggcgt 100
tcaggtgcag agtctcagtt gcccgggagc acctcccctc ccgaggcagt 150
ctgctcagag ggctcgggc cagaattcca gttctggttt catgccagcc 200
tgtaaaaggc catggaactt tgggtgaatc accgatgcca ttttaagaagg 250
ttttctgcca ggatggaaat gttaggctcg tctgtgtctg cgctgttcat 300
ttcagtagcc accagccacc tgtggccggt gagtgcttga aatgaggaac 350
tgagaaaatt aatttctcat gtatttttct catttattta ttaattttta 400
actgatagtt gtacatatat ggggggtacat gtgatatttg gatacatgta 450
tacaatatat aatgatcaaa tcagggtaac tgggatatcc atcacatcaa 500
acatttattt tttattcttt ttagacagag tctcactctg tcaccaggc 550
tggagtgcag tggtgccatc tcagcttact gcaacctctg cctgccaggt 600
tcaagcgatt ctcatgcctc cacctcccaa gtagctggga ctacaggcat 650
gcaccacaat gcccaactaa tttttgtatt tttagtagag acggggtttt 700
gccatgttgc ccaggctggc cttgaactcc tggcctcaaa caatccactt 750
gcctcggcct cccaaagtgt tatgattaca ggcgtgagcc accgtgcctg 800
gcctaaacat ttatcttttc tttgtgttgg gaactttgaa attatacaat 850
gaattattgt taactgtcat ctccctgctg tgctatggaa cactgggact 900
tcttccctct atctaactgt atatttgtac cagttaacca accgtacttc 950
atccccactc ctctctatcc ttcccaacct ctgatcacct cattctactc 1000
tctacctcca tgagatccac ttttttagct cccacatgtg agtaagaaaa 1050
tgcaatattt gtctttctgt gcctggctta tttcacttaa cataatgact 1100
tcctgttcca tccatgttgc tgcaaatgac aggatttcgt tcttaatttc 1150
aattaaaata accacacatg gcaaaaa 1177
```

<210> 130

<211> 111

<212> PRT

<213> Homo Sapien

<400> 130

Met Gly Leu Leu Leu Leu Val Leu Phe Leu Ser Leu Leu Pro Val

1	5	10	15
Ala Tyr Thr Ile Met Ser Leu Pro Pro Ser Phe Asp Cys Gly Pro	20	25	30
Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg	35	40	45
Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val	50	55	60
Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro	65	70	75
Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser	80	85	90
Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val	95	100	105
Ala Val Glu Cys Leu Lys	110		

<210> 131  
 <211> 2061  
 <212> DNA  
 <213> Homo Sapien

<400> 131  
 ttctgaagta acggaagcta ccttgtataa agacctcaac actgctgacc 50  
 atgatcagcg cagcctggag catcttcctc atcgggacta aaattgggct 100  
 gttccttcaa gtagcacctc tatcagttat ggctaaatcc tgtccatctg 150  
 tgtgtcgctg cgatgcgggt ttcatttact gtaatgatcg ctttctgaca 200  
 tccattccaa caggaatacc agaggatgct acaactctct accttcagaa 250  
 caaccaaata aataatgctg ggattccttc agatttgaaa aacttgctga 300  
 aagtagaaa aatataccta taccacaaca gtttagatga atttcctacc 350  
 aacctcccaa agtatgtaaa agagttacat ttgcaagaaa ataacataag 400  
 gactatcact tatgattcac tttcaaaaat tccctatctg gaagaattac 450  
 atttagatga caactctgtc tctgcagtta gcatagaaga gggagcattc 500  
 cgagacagca actatctccg actgcttttc ctgtcccgta atcaccttag 550  
 cacaattccc tgggggtttgc ccaggactat agaagaacta cgcttgatg 600  
 ataatcgcat atccactatt tcatcaccat ctcttcaagg tctcactagt 650  
 ctaaaacgcc tgggttctaga tggaaacctg ttgaacaatc atgggttagg 700

tgacaaagtt ttcttcaacc tagttaattt gacagagctg tccctggtgc 750  
 ggaattccct gactgctgca ccagtaaacc ttccaggcac aaacctgagg 800  
 aagctttatc ttcaagataa ccacatcaat cgggtgcccc caaatgcttt 850  
 ttcttatcta aggcagctct atcgactgga tatgtccaat aataacctaa 900  
 gtaatttacc tcagggtatc tttgatgatt tggacaatat aacacaactg 950  
 attcttcgca acaatccctg gtattgcggg tgcaagatga aatgggtacg 1000  
 tgactggtta caatcactac ctgtgaaggt caacgtgcgt gggctcatgt 1050  
 gccaagcccc agaaaagggt cgtgggatgg ctattaagga tctcaatgca 1100  
 gaactgtttg attgtaagga cagtgggatt gtaagcacca ttcagataac 1150  
 cactgcaata cccaacacag tgtatcctgc ccaaggacag tggccagctc 1200  
 cagtgaccaa acagccagat attaagaacc ccaagctcac taaggatcaa 1250  
 caaaccacag ggagtccttc aagaaaaaca attacaatta ctgtgaagtc 1300  
 tgtcacctct gataccattc atatctcttg gaaacttgct ctacctatga 1350  
 ctgctttgag actcagctgg cttaaactgg gccatagccc ggcatttgga 1400  
 tctataacag aaacaattgt aacaggggaa cgcagtgagt acttggtcac 1450  
 agccctggag cctgattcac cctataaagt atgcatgggt cccatggaaa 1500  
 ccagcaacct ctacctattt gatgaaactc ctgtttgtat tgagactgaa 1550  
 actgcacccc ttcgaatgta caaccctaca accaccctca atcgagagca 1600  
 agagaaagaa cttacaaaa accccaattt acctttgggt gccatcattg 1650  
 gtggggctgt ggccctgggt accattgccc ttcttgcttt agtgtgttg 1700  
 tatgttcata ggaatggatc gctcttctca aggaactgtg catatagcaa 1750  
 agggaggaga agaaaggatg actatgcaga agctggcact aagaaggaca 1800  
 actctatcct ggaaatcagg gaaacttctt ttcagatgtt accaataagc 1850  
 aatgaaccca tctcgaagga ggagtttgta atacacacca tatttcctcc 1900  
 taatggaatg aatctgtaca aaaacaatca cagtgaaagc agtagtaacc 1950  
 gaagctacag agacagtggg attccagact cagatcactc acactcatga 2000  
 tgctgaagga ctcacagcag acttgtgttt tgggtttttt aaacctaaagg 2050  
 gaggtgatgg t 2061

<210> 132

<211> 649  
 <212> PRT  
 <213> Homo Sapien

<400> 132

Met	Ile	Ser	Ala	Ala	Trp	Ser	Ile	Phe	Leu	Ile	Gly	Thr	Lys	Ile	1	5	10	15
Gly	Leu	Phe	Leu	Gln	Val	Ala	Pro	Leu	Ser	Val	Met	Ala	Lys	Ser	20	25	30	
Cys	Pro	Ser	Val	Cys	Arg	Cys	Asp	Ala	Gly	Phe	Ile	Tyr	Cys	Asn	35	40	45	
Asp	Arg	Phe	Leu	Thr	Ser	Ile	Pro	Thr	Gly	Ile	Pro	Glu	Asp	Ala	50	55	60	
Thr	Thr	Leu	Tyr	Leu	Gln	Asn	Asn	Gln	Ile	Asn	Asn	Ala	Gly	Ile	65	70	75	
Pro	Ser	Asp	Leu	Lys	Asn	Leu	Leu	Lys	Val	Glu	Arg	Ile	Tyr	Leu	80	85	90	
Tyr	His	Asn	Ser	Leu	Asp	Glu	Phe	Pro	Thr	Asn	Leu	Pro	Lys	Tyr	95	100	105	
Val	Lys	Glu	Leu	His	Leu	Gln	Glu	Asn	Asn	Ile	Arg	Thr	Ile	Thr	110	115	120	
Tyr	Asp	Ser	Leu	Ser	Lys	Ile	Pro	Tyr	Leu	Glu	Glu	Leu	His	Leu	125	130	135	
Asp	Asp	Asn	Ser	Val	Ser	Ala	Val	Ser	Ile	Glu	Glu	Gly	Ala	Phe	140	145	150	
Arg	Asp	Ser	Asn	Tyr	Leu	Arg	Leu	Leu	Phe	Leu	Ser	Arg	Asn	His	155	160	165	
Leu	Ser	Thr	Ile	Pro	Trp	Gly	Leu	Pro	Arg	Thr	Ile	Glu	Glu	Leu	170	175	180	
Arg	Leu	Asp	Asp	Asn	Arg	Ile	Ser	Thr	Ile	Ser	Ser	Pro	Ser	Leu	185	190	195	
Gln	Gly	Leu	Thr	Ser	Leu	Lys	Arg	Leu	Val	Leu	Asp	Gly	Asn	Leu	200	205	210	
Leu	Asn	Asn	His	Gly	Leu	Gly	Asp	Lys	Val	Phe	Phe	Asn	Leu	Val	215	220	225	
Asn	Leu	Thr	Glu	Leu	Ser	Leu	Val	Arg	Asn	Ser	Leu	Thr	Ala	Ala	230	235	240	
Pro	Val	Asn	Leu	Pro	Gly	Thr	Asn	Leu	Arg	Lys	Leu	Tyr	Leu	Gln	245	250	255	
Asp	Asn	His	Ile	Asn	Arg	Val	Pro	Pro	Asn	Ala	Phe	Ser	Tyr	Leu				

	260		265		270
Arg Gln Leu Tyr	Arg Leu Asp Met Ser	Asn Asn Asn Leu Ser	Asn		
	275		280		285
Leu Pro Gln Gly	Ile Phe Asp Asp Leu	Asp Asn Ile Thr Gln	Leu		
	290		295		300
Ile Leu Arg Asn	Asn Pro Trp Tyr Cys	Gly Cys Lys Met Lys	Trp		
	305		310		315
Val Arg Asp Trp	Leu Gln Ser Leu Pro	Val Lys Val Asn Val	Arg		
	320		325		330
Gly Leu Met Cys	Gln Ala Pro Glu Lys	Val Arg Gly Met Ala	Ile		
	335		340		345
Lys Asp Leu Asn	Ala Glu Leu Phe Asp	Cys Lys Asp Ser Gly	Ile		
	350		355		360
Val Ser Thr Ile	Gln Ile Thr Thr Ala	Ile Pro Asn Thr Val	Tyr		
	365		370		375
Pro Ala Gln Gly	Gln Trp Pro Ala Pro	Val Thr Lys Gln Pro	Asp		
	380		385		390
Ile Lys Asn Pro	Lys Leu Thr Lys Asp	Gln Gln Thr Thr Gly	Ser		
	395		400		405
Pro Ser Arg Lys	Thr Ile Thr Ile Thr	Val Lys Ser Val Thr	Ser		
	410		415		420
Asp Thr Ile His	Ile Ser Trp Lys Leu	Ala Leu Pro Met Thr	Ala		
	425		430		435
Leu Arg Leu Ser	Trp Leu Lys Leu Gly	His Ser Pro Ala Phe	Gly		
	440		445		450
Ser Ile Thr Glu	Thr Ile Val Thr Gly	Glu Arg Ser Glu Tyr	Leu		
	455		460		465
Val Thr Ala Leu	Glu Pro Asp Ser Pro	Tyr Lys Val Cys Met	Val		
	470		475		480
Pro Met Glu Thr	Ser Asn Leu Tyr Leu	Phe Asp Glu Thr Pro	Val		
	485		490		495
Cys Ile Glu Thr	Glu Thr Ala Pro Leu	Arg Met Tyr Asn Pro	Thr		
	500		505		510
Thr Thr Leu Asn	Arg Glu Gln Glu Lys	Glu Pro Tyr Lys Asn	Pro		
	515		520		525
Asn Leu Pro Leu	Ala Ala Ile Ile Gly	Gly Ala Val Ala Leu	Val		
	530		535		540
Thr Ile Ala Leu	Leu Ala Leu Val Cys	Trp Tyr Val His Arg	Asn		

	545		550		555
Gly Ser Leu Phe	Ser Arg Asn Cys Ala	Tyr Ser Lys Gly Arg	Arg		
	560		565		570
Arg Lys Asp Asp	Tyr Ala Glu Ala Gly	Thr Lys Lys Asp Asn	Ser		
	575		580		585
Ile Leu Glu Ile	Arg Glu Thr Ser Phe	Gln Met Leu Pro Ile	Ser		
	590		595		600
Asn Glu Pro Ile	Ser Lys Glu Glu Phe	Val Ile His Thr Ile	Phe		
	605		610		615
Pro Pro Asn Gly	Met Asn Leu Tyr Lys	Asn Asn His Ser Glu	Ser		
	620		625		630
Ser Ser Asn Arg	Ser Tyr Arg Asp Ser	Gly Ile Pro Asp Ser	Asp		
	635		640		645

His Ser His Ser

<210> 133

<211> 1882

<212> DNA

<213> Homo Sapien

<400> 133

```

ccgtcatccc cctgcagcca cccttcccag agtcctttgc ccaggccacc 50
ccaggcttct tggcagccct gccgggccac ttgtcttcat gtctgccagg 100
gggaggtggg aaggaggtgg gaggagggcg tgcagaggca gtctgggctt 150
ggccagagct caggggtgctg agcgtgtgac cagcagtgag cagaggccgg 200
ccatggccag cctgggggctg ctgctcctgc tcttactgac agcactgcca 250
ccgctgtggt cctcctcact gcctgggctg gacactgctg aaagtaaagc 300
caccattgca gacctgatcc tgtctgcgct ggagagagcc accgtcttcc 350
tagaacagag gctgcctgaa atcaacctgg atggcatggt ggggggtccga 400
gtgctggaag agcagctaaa aagtgtccgg gagaagtggg cccaggagcc 450
cctgctgcag ccgctgagcc tgcgcgtggg gatgctgggg gagaagctgg 500
aggctgccat ccagagatcc ctccactacc tcaagctgag tgatcccaag 550
tacctaagag agttccagct gaccctccag cccgggtttt ggaagctccc 600
acatgcctgg atccacactg atgcctcctt ggtgtacccc acgttcgggc 650
cccaggactc attctcagag gagagaagtg acgtgtgcct ggtgcagctg 700
ctgggaaccg ggacggacag cagcgagccc tgcggcctct cagacctctg 750

```

caggagcctc atgaccaagc ccggtctgctc aggctactgc ctgtcccacc 800  
aactgctctt cttcctctgg gccagaatga ggggatgcac acagggacca 850  
ctccaacaga gccaggacta tatcaacctc ttctgcgcca acatgatgga 900  
cttgaaccgc agagctgagg ccatcgata cgcctaccct acccgggaca 950  
tcttcatgga aaacatcatg ttctgtggaa tgggcggctt ctccgacttc 1000  
tacaagctcc ggtggctgga ggccattctc agctggcaga aacagcagga 1050  
aggatgcttc ggggagcctg atgctgaaga tgaagaatta tctaaagcta 1100  
ttcaatatca gcagcatttt tgcaggagag tgaagaggcg agaaaaacaa 1150  
tttcagatt ctgctctgtg tgctcaggct ggagtacagt ggcgcaatct 1200  
cggctcactg caacctttgc ctctggggtt caagcaattc tcttgctca 1250  
tcctcccgag tagctgggac tacaggagcg tgccaccata cctggctaata 1300  
ttttatattt ttttagtaga gacagggttt catcatgttg ctcatgctgg 1350  
tctcgaactc ctgatctcaa gagatccgcc cacctcaggc tcccaaagt 1400  
tgggattata ggtgtgagcc accgtgtctg gctgaaaagc actttcaaag 1450  
agactgtgtt gaataaaggc ccaagggttct tgccaccag cactcatggg 1500  
ggctctctcc cctagatggc tgctctctcc acaacacagc cacagcagt 1550  
gcagccctgg gtggcttctc atacatctg gcagaatacc cccagcaaa 1600  
cagagagcca caccatcca caccgccacc accaagcagc cgctgagacg 1650  
gacggttcca tgccagctgc ctggaggagg aacagacccc tttagtcctc 1700  
atcccttaga tcctggaggg cacggatcac atcttgggaa gaaggcatct 1750  
ggaggataag caaagccacc ccgacacca atcttgaag ccctgagtag 1800  
gcagggccag ggtaggtggg ggccgggagg gaccaggtg tgaacggatg 1850  
aataaagttc aactgcaact gaaaaaaaaa aa 1882

<210> 134

<211> 440

<212> PRT

<213> Homo Sapien

<400> 134

Met	Ser	Ala	Arg	Gly	Arg	Trp	Glu	Gly	Gly	Gly	Arg	Arg	Ala	Cys
1				5				10						15

Arg	Gly	Ser	Leu	Gly	Leu	Ala	Arg	Ala	Gln	Gly	Ala	Glu	Arg	Val
			20						25					30

Thr	Ser	Ser	Glu	Gln	Arg	Pro	Ala	Met	Ala	Ser	Leu	Gly	Leu	Leu	35	40	45
Leu	Leu	Leu	Leu	Leu	Thr	Ala	Leu	Pro	Pro	Leu	Trp	Ser	Ser	Ser	50	55	60
Leu	Pro	Gly	Leu	Asp	Thr	Ala	Glu	Ser	Lys	Ala	Thr	Ile	Ala	Asp	65	70	75
Leu	Ile	Leu	Ser	Ala	Leu	Glu	Arg	Ala	Thr	Val	Phe	Leu	Glu	Gln	80	85	90
Arg	Leu	Pro	Glu	Ile	Asn	Leu	Asp	Gly	Met	Val	Gly	Val	Arg	Val	95	100	105
Leu	Glu	Glu	Gln	Leu	Lys	Ser	Val	Arg	Glu	Lys	Trp	Ala	Gln	Glu	110	115	120
Pro	Leu	Leu	Gln	Pro	Leu	Ser	Leu	Arg	Val	Gly	Met	Leu	Gly	Glu	125	130	135
Lys	Leu	Glu	Ala	Ala	Ile	Gln	Arg	Ser	Leu	His	Tyr	Leu	Lys	Leu	140	145	150
Ser	Asp	Pro	Lys	Tyr	Leu	Arg	Glu	Phe	Gln	Leu	Thr	Leu	Gln	Pro	155	160	165
Gly	Phe	Trp	Lys	Leu	Pro	His	Ala	Trp	Ile	His	Thr	Asp	Ala	Ser	170	175	180
Leu	Val	Tyr	Pro	Thr	Phe	Gly	Pro	Gln	Asp	Ser	Phe	Ser	Glu	Glu	185	190	195
Arg	Ser	Asp	Val	Cys	Leu	Val	Gln	Leu	Leu	Gly	Thr	Gly	Thr	Asp	200	205	210
Ser	Ser	Glu	Pro	Cys	Gly	Leu	Ser	Asp	Leu	Cys	Arg	Ser	Leu	Met	215	220	225
Thr	Lys	Pro	Gly	Cys	Ser	Gly	Tyr	Cys	Leu	Ser	His	Gln	Leu	Leu	230	235	240
Phe	Phe	Leu	Trp	Ala	Arg	Met	Arg	Gly	Cys	Thr	Gln	Gly	Pro	Leu	245	250	255
Gln	Gln	Ser	Gln	Asp	Tyr	Ile	Asn	Leu	Phe	Cys	Ala	Asn	Met	Met	260	265	270
Asp	Leu	Asn	Arg	Arg	Ala	Glu	Ala	Ile	Gly	Tyr	Ala	Tyr	Pro	Thr	275	280	285
Arg	Asp	Ile	Phe	Met	Glu	Asn	Ile	Met	Phe	Cys	Gly	Met	Gly	Gly	290	295	300
Phe	Ser	Asp	Phe	Tyr	Lys	Leu	Arg	Trp	Leu	Glu	Ala	Ile	Leu	Ser	305	310	315



Trp	Gln	Lys	Gln	Gln	Glu	Gly	Cys	Phe	Gly	Glu	Pro	Asp	Ala	Glu			
				320					325					330			
Asp	Glu	Glu	Leu	Ser	Lys	Ala	Ile	Gln	Tyr	Gln	Gln	His	Phe	Ser			
				335					340					345			
Arg	Arg	Val	Lys	Arg	Arg	Glu	Lys	Gln	Phe	Pro	Asp	Ser	Arg	Ser			
				350					355					360			
Val	Ala	Gln	Ala	Gly	Val	Gln	Trp	Arg	Asn	Leu	Gly	Ser	Leu	Gln			
				365					370					375			
Pro	Leu	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Leu	Ile	Leu	Pro			
				380					385					390			
Ser	Ser	Trp	Asp	Tyr	Arg	Ser	Val	Pro	Pro	Tyr	Leu	Ala	Asn	Phe			
				395					400					405			
Tyr	Ile	Phe	Leu	Val	Glu	Thr	Gly	Phe	His	His	Val	Ala	His	Ala			
				410					415					420			
Gly	Leu	Glu	Leu	Leu	Ile	Ser	Arg	Asp	Pro	Pro	Thr	Ser	Gly	Ser			
				425					430					435			
Gln	Ser	Val	Gly	Leu													
				440													

<210> 135  
 <211> 884  
 <212> DNA  
 <213> Homo Sapien

<400> 135  
 ggtctgagtg cagagctgct gtcattggcgg ccgctctgtg gggcttcttt 50  
  
 cccgtcctgc tgctgctgct gctatcgggg gatgtccaga gctcggaggt 100  
 gcccggggct gctgctgagg gatcgggagg gaggggggtc ggcataggag 150  
  
 atcgcttcaa gattgagggg cgtgcagttg ttccaggggt gaagcctcag 200  
  
 gactggatct cggcggcccc agtgctggta gacggagaag agcacgtcgg 250  
  
 tttccttaag acagatggga gttttgtggt tcatgatata ctttctggat 300  
  
 cttatgtagt ggaagttgta tctccagctt acagatttga tcccgttcga 350  
  
 gtggatatca cttcgaaagg aaaaatgaga gcaagatatg tgaattacat 400  
  
 caaaacatca gaggttgtca gactgcccta tcctctccaa atgaaatctt 450  
  
 cagggtccacc ttcttacttt attaaaaggg aatcgtgggg ctggacagac 500  
  
 tttctaataga acccaatggt tatgatgatg gttcttcctt tattgatatt 550  
  
 tgtgcttctg cctaaagtgg tcaacacaag tgatcctgac atgagacggg 600  
  
 aaatggagca gtcaatgaat atgctgaatt ccaaccatga gttgcctgat 650

gtttctgagt tcatgacaag actcttctct tcaaaatcat ctggcaaadc 700  
tagcagcggc agcagtaaaa caggcaaaag tggggctggc aaaaggaggt 750  
agtcaggccg tccagagctg gcatttgcac aaacacggca aactgggtg 800  
gcatccaagt cttggaanaac cgtgtgaagc aactactata aacttgagtc 850  
atcccgaagt tgatctctta caactgtgta tggtt 884

<210> 136  
<211> 242  
<212> PRT  
<213> Homo Sapien

<400> 136  
Met Ala Ala Ala Leu Trp Gly Phe Phe Pro Val Leu Leu Leu Leu  
1 5 10 15  
Leu Leu Ser Gly Asp Val Gln Ser Ser Glu Val Pro Gly Ala Ala  
20 25 30  
Ala Glu Gly Ser Gly Gly Ser Gly Val Gly Ile Gly Asp Arg Phe  
35 40 45  
Lys Ile Glu Gly Arg Ala Val Val Pro Gly Val Lys Pro Gln Asp  
50 55 60  
Trp Ile Ser Ala Ala Arg Val Leu Val Asp Gly Glu Glu His Val  
65 70 75  
Gly Phe Leu Lys Thr Asp Gly Ser Phe Val Val His Asp Ile Pro  
80 85 90  
Ser Gly Ser Tyr Val Val Glu Val Val Ser Pro Ala Tyr Arg Phe  
95 100 105  
Asp Pro Val Arg Val Asp Ile Thr Ser Lys Gly Lys Met Arg Ala  
110 115 120  
Arg Tyr Val Asn Tyr Ile Lys Thr Ser Glu Val Val Arg Leu Pro  
125 130 135  
Tyr Pro Leu Gln Met Lys Ser Ser Gly Pro Pro Ser Tyr Phe Ile  
140 145 150  
Lys Arg Glu Ser Trp Gly Trp Thr Asp Phe Leu Met Asn Pro Met  
155 160 165  
Val Met Met Met Val Leu Pro Leu Leu Ile Phe Val Leu Leu Pro  
170 175 180  
Lys Val Val Asn Thr Ser Asp Pro Asp Met Arg Arg Glu Met Glu  
185 190 195  
Gln Ser Met Asn Met Leu Asn Ser Asn His Glu Leu Pro Asp Val

	200		205		210
Ser Glu Phe Met Thr Arg Leu Phe Ser Ser Lys Ser Ser Gly Lys					
	215		220		225
Ser Ser Ser Gly Ser Ser Lys Thr Gly Lys Ser Gly Ala Gly Lys					
	230		235		240

Arg Arg

<210> 137  
 <211> 1571  
 <212> DNA  
 <213> Homo Sapien

<400> 137  
 gatggcgcag ccacagcttc tgtgagattc gattttctccc cagttcccct 50  
 gtgggtctga ggggaccaga aggggtgagct acgttggctt tctggaaggg 100  
 gaggctatat gcgtcaattc cccaaaacaa gttttgacat ttcccctgaa 150  
 atgtcattct ctatctattc actgcaagtg cctgctgttc caggccttac 200  
 ctgctgggca ctaacggcgg agccaggatg gggacagaat aaaggagcca 250  
 cgacctgtgc caccaactcg cactcagact ctgaactcag acctgaaatc 300  
 ttctcttcac gggaggcttg gcagtttttc ttactcctgt ggtctccaga 350  
 tttcaggcct aagatgaaag cctctagtct tgccttcagc cttctctctg 400  
 ctgcgtttta tctcctatgg actccttcca ctggactgaa gacactcaat 450  
 ttgggaagct gtgtgatcgc caciaaacctt caggaaatac gaaatggatt 500  
 ttctgagata cggggcagtg tgcaagccaa agatggaaac attgacatca 550  
 gaatcttaag gaggactgag tctttgcaag acacaaagcc tgcgaatcga 600  
 tgctgcctcc tgcgccattt gctaagactc tatctggaca gggatatttaa 650  
 aaactaccag acccctgacc attatactct ccggaagatc agcagcctcg 700  
 ccaattcctt tcttaccatc aagaaggacc tccggctctc tcatgcccac 750  
 atgacatgcc attgtgggga ggaagcaatg aagaaatata gccagattct 800  
 gagtcacttt gaaaagctgg aacctcaggc agcagttgtg aaggcttttg 850  
 gggaaactaga cattcttctg caatggatgg aggagacaga ataggaggaa 900  
 agtgatgctg ctgctaagaa tattcgaggt caagagctcc agtcttcaat 950  
 acctgcagag gaggcatgac cccaaaccac catctcttta ctgtactagt 1000  
 cttgtgctgg tcacagtgta tcttatttat gcattacttg cttccttgca 1050

tgattgtctt tatgcatccc caatcttaat tgagaccata cttgtataag 1100  
 atttttgtaa tatctttctg ctattggata tttttattag ttaatatatt 1150  
 tttttatttt ttgctattta atgtatttat ttttttactt ggacatgaaa 1200  
 ctttaaaaaa attcacagat tatatttata acctgactag agcaggtgat 1250  
 gtatttttat acagtaaaaa aaaaaaacct tgtaaattct agaagagtgg 1300  
 ctaggggggt tattcatttg tattcaacta aggacatatt tactcatgct 1350  
 gatgctctgt gagatatttg aaattgaacc aatgactact taggatgggt 1400  
 tgtggaataa gttttgatgt ggaattgcac atctacctta caattactga 1450  
 ccatccccag tagactcccc agtcccataa ttgtgtatct tccagccagg 1500  
 aatcctacac ggccagcatg tttttctaca aataaagttt tctttgcata 1550  
 ccaaaaaaaaa aaaaaaaaaa a 1571

<210> 138  
 <211> 261  
 <212> PRT  
 <213> Homo Sapien

<400> 138  
 Met Arg Gln Phe Pro Lys Thr Ser Phe Asp Ile Ser Pro Glu Met  
 1 5 10 15  
 Ser Phe Ser Ile Tyr Ser Leu Gln Val Pro Ala Val Pro Gly Leu  
 20 25 30  
 Thr Cys Trp Ala Leu Thr Ala Glu Pro Gly Trp Gly Gln Asn Lys  
 35 40 45  
 Gly Ala Thr Thr Cys Ala Thr Asn Ser His Ser Asp Ser Glu Leu  
 50 55 60  
 Arg Pro Glu Ile Phe Ser Ser Arg Glu Ala Trp Gln Phe Phe Leu  
 65 70 75  
 Leu Leu Trp Ser Pro Asp Phe Arg Pro Lys Met Lys Ala Ser Ser  
 80 85 90  
 Leu Ala Phe Ser Leu Leu Ser Ala Ala Phe Tyr Leu Leu Trp Thr  
 95 100 105  
 Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser Cys Val Ile  
 110 115 120  
 Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu Ile Arg  
 125 130 135  
 Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile Leu

140	145	150
Arg Arg Thr Glu Ser Leu Gln Asp Thr	Lys Pro Ala Asn Arg Cys	
155	160	165
Cys Leu Leu Arg His Leu Leu Arg Leu	Tyr Leu Asp Arg Val Phe	
170	175	180
Lys Asn Tyr Gln Thr Pro Asp His Tyr	Thr Leu Arg Lys Ile Ser	
185	190	195
Ser Leu Ala Asn Ser Phe Leu Thr Ile	Lys Lys Asp Leu Arg Leu	
200	205	210
Ser His Ala His Met Thr Cys His Cys	Gly Glu Glu Ala Met Lys	
215	220	225
Lys Tyr Ser Gln Ile Leu Ser His Phe	Glu Lys Leu Glu Pro Gln	
230	235	240
Ala Ala Val Val Lys Ala Leu Gly Glu	Leu Asp Ile Leu Leu Gln	
245	250	255
Trp Met Glu Glu Thr Glu		
260		

<210> 139  
 <211> 2395  
 <212> DNA  
 <213> Homo Sapien

<400> 139  
 cctggagccg gaagcgcggc tgcagcaggg cgaggctcca ggtgggggtcg 50  
 gttccgcata cagcctagcg tgtccacgat gcggctgggc tccgggactt 100  
 tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150  
 cggggattct tcccggctcc cgttcgttcc tctgccagag cggaacacgg 200  
 agcggagccc ccagcgcgcc aaccctcggc tggagccagt tctaactgga 250  
 ccacgctgcc accacctctc ttcagtaaag ttgttattgt tctgatagat 300  
 gccttgagag atgattttgt gtttgggtca aagggtgtga aatttatgcc 350  
 ctacacaact taccttgtgg aaaaaggagc atctcacagt tttgtggctg 400  
 aagcaaagcc acctacagtt actatgcctc gaatcaaggc attgatgacg 450  
 gggagccttc ctggctttgt cgacgtcatc aggaacctca attctcctgc 500  
 actgctggaa gacagtgtga taagacaagc aaaagcagct ggaaaaagaa 550  
 tagtctttta tggagatgaa acctgggtta aattattccc aaagcatttt 600  
 gtggaatatg atggaacaac ctcatTTTTT gtgtcagatt acacagaggt 650

ggataataat gtcacgaggc atttggataa agtattaaaa agaggagatt 700  
 gggacatatt aatcctccac tacctggggc tggaccacat tggccacatt 750  
 tcagggccca acagccccct gattgggcag aagctgagcg agatggacag 800  
 cgtgctgatg aagatccaca cctcactgca gtcgaaggag agagagacgc 850  
 ctttacccaa tttgctgggt ctttgtgggt accatggcat gtctgaaaca 900  
 ggaagtcacg gggcctcctc caccgaggag gtgaatacac ctctgatttt 950  
 aatcagttct gcgtttgaaa ggaaaccggt tgatatccga catccaaagc 1000  
 acgtccaata gacggatgtg gctgcgacac tggcgatagc acttggctta 1050  
 ccgattccaa aagacagtgt agggagcctc ctattcccag ttgtggaagg 1100  
 aagaccaatg agagagcagt tgagattttt acatttgaat acagtgcagc 1150  
 ttagtaaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200  
 tttgagcagt ttaaaatgtc agaaagattg catgggaact ggatcagact 1250  
 gtacttggag gaaaagcatt cagaagtcct attcaacctg ggctccaagg 1300  
 ttctcaggca gtacctggat gctctgaaga cgctgagctt gtccctgagt 1350  
 gcacaagtgg ccagttctc accctgctcc tgctcagcgt cccacaggca 1400  
 ctgcacagaa aggctgagct ggaagtccca ctgtcatctc ctgggttttc 1450  
 tctgctcttt tatttggtga tcctggttct ttcggccgtt cacgtcattg 1500  
 tgtgcacctc agctgaaagt tcgtgctact tctgtggcct ctcgtggctg 1550  
 gcggcaggct gcctttcggt taccagactc tgggtgaaca cctgggtgtg 1600  
 gccaaagtgt gccagtgcc tggacagggg gcctcagga aggacgtgga 1650  
 gcagccttat ccaggcctc tgggtgtccc gacacaggtg ttcacatctg 1700  
 tgctgtcagg tcagatgcct cagttcttgg aaagctaggt tcctgcgact 1750  
 gttaccaagg tgattgtaaa gagctggcgg tcacagagga acaagcccc 1800  
 cagctgaggg ggtgtgtgaa tcggacagcc tcccagcaga ggtgtgggag 1850  
 ctgcagctga gggaagaaga gacaatcggc ctggacactc aggaggggtca 1900  
 aaaggagact tggtcgcacc actcatcctg ccacccccag aatgcacct 1950  
 gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaat 2000  
 tcttagtcct tggcctcgga caccttcatt cgtagctgg ggagtgggtg 2050

tgaggcagtg aagaagaggc ggatgggtcac actcagatcc acagagccca 2100  
 ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150  
 aaccctgcac agccctcatc ccctcttggc ttgagccgtc agaggccctg 2200  
 tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggc 2250  
 ttcctcggag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300  
 gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350  
 tatgtagtta ccaaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 140  
 <211> 310  
 <212> PRT  
 <213> Homo Sapien

<400> 140  
 Met Arg Leu Gly Ser Gly Thr Phe Ala Thr Cys Cys Val Ala Ile  
 1 5 10 15  
 Glu Val Leu Gly Ile Ala Val Phe Leu Arg Gly Phe Phe Pro Ala  
 20 25 30  
 Pro Val Arg Ser Ser Ala Arg Ala Glu His Gly Ala Glu Pro Pro  
 35 40 45  
 Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu  
 50 55 60  
 Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala  
 65 70 75  
 Leu Arg Asp Asp Phe Val Phe Gly Ser Lys Gly Val Lys Phe Met  
 80 85 90  
 Pro Tyr Thr Thr Tyr Leu Val Glu Lys Gly Ala Ser His Ser Phe  
 95 100 105  
 Val Ala Glu Ala Lys Pro Pro Thr Val Thr Met Pro Arg Ile Lys  
 110 115 120  
 Ala Leu Met Thr Gly Ser Leu Pro Gly Phe Val Asp Val Ile Arg  
 125 130 135  
 Asn Leu Asn Ser Pro Ala Leu Leu Glu Asp Ser Val Ile Arg Gln  
 140 145 150  
 Ala Lys Ala Ala Gly Lys Arg Ile Val Phe Tyr Gly Asp Glu Thr  
 155 160 165  
 Trp Val Lys Leu Phe Pro Lys His Phe Val Glu Tyr Asp Gly Thr  
 170 175 180  
 Thr Ser Phe Phe Val Ser Asp Tyr Thr Glu Val Asp Asn Asn Val

	185		190		195
Thr Arg His Leu Asp Lys Val Leu Lys Arg Gly Asp Trp Asp Ile					
	200		205		210
Leu Ile Leu His Tyr Leu Gly Leu Asp His Ile Gly His Ile Ser					
	215		220		225
Gly Pro Asn Ser Pro Leu Ile Gly Gln Lys Leu Ser Glu Met Asp					
	230		235		240
Ser Val Leu Met Lys Ile His Thr Ser Leu Gln Ser Lys Glu Arg					
	245		250		255
Glu Thr Pro Leu Pro Asn Leu Leu Val Leu Cys Gly Asp His Gly					
	260		265		270
Met Ser Glu Thr Gly Ser His Gly Ala Ser Ser Thr Glu Glu Val					
	275		280		285
Asn Thr Pro Leu Ile Leu Ile Ser Ser Ala Phe Glu Arg Lys Pro					
	290		295		300
Gly Asp Ile Arg His Pro Lys His Val Gln					
	305		310		

<210> 141

<211> 754

<212> DNA

<213> Homo Sapien

<400> 141

```

ggcacgaggc aagccttcca gggtatcgtg acgcaccttg aaagtctgag 50
agctactgcc ctacagaaag ttactagtgc cctaaagctg gcgctggcac 100
tgatgttact gctgctgttg gagtacaact tccctataga aaacaactgc 150
cagcacctta agaccactca caccttcaga gtgaagaact taaacccgaa 200
gaaattcagc attcatgacc aggatcacaa agtactggtc ctggactctg 250
ggaatctcat agcagttcca gataaaaact acatacgccc agagatcttc 300
tttgattag cctcatcctt gagctcagcc tctgcggaga aaggaagtcc 350
gattctcctg ggggtctcta aaggggagtt ttgtctctac tgtgacaagg 400
ataaaggaca aagtcattca tcccttcagc tgaagaagga gaaactgatg 450
aagctggctg cccaaaagga atcagcacgc cggcccttca tcttttatag 500
ggctcaggtg ggctcctgga acatgctgga gtcggcggct caccgccgat 550
ggttcattctg cacctcctgc aattgtaatg agcctggttg ggtgacagat 600
aaatttgaga acaggaaaca cattgaattt tcatttcaac cagtttgcaa 650

```



agctgaaatg agccccagtg aggtcagcga ttaggaaact gcccattga 700  
 acgccttcct cgctaatttg aactaattgt ataaaaacac caaacctgct 750  
 cact 754

<210> 142  
 <211> 193  
 <212> PRT  
 <213> Homo Sapien

<400> 142  
 Met Leu Leu Leu Leu Leu Glu Tyr Asn Phe Pro Ile Glu Asn Asn  
     1                    5                    10                    15  
 Cys Gln His Leu Lys Thr Thr His Thr Phe Arg Val Lys Asn Leu  
                     20                    25                    30  
 Asn Pro Lys Lys Phe Ser Ile His Asp Gln Asp His Lys Val Leu  
                     35                    40                    45  
 Val Leu Asp Ser Gly Asn Leu Ile Ala Val Pro Asp Lys Asn Tyr  
                     50                    55                    60  
 Ile Arg Pro Glu Ile Phe Phe Ala Leu Ala Ser Ser Leu Ser Ser  
                     65                    70                    75  
 Ala Ser Ala Glu Lys Gly Ser Pro Ile Leu Leu Gly Val Ser Lys  
                     80                    85                    90  
 Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp Lys Gly Gln Ser His  
                     95                    100                    105  
 Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met Lys Leu Ala Ala  
                     110                    115                    120  
 Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr Arg Ala Gln  
                     125                    130                    135  
 Val Gly Ser Trp Asn Met Leu Glu Ser Ala Ala His Pro Gly Trp  
                     140                    145                    150  
 Phe Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val Thr  
                     155                    160                    165  
 Asp Lys Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro  
                     170                    175                    180  
 Val Cys Lys Ala Glu Met Ser Pro Ser Glu Val Ser Asp  
                     185                    190

<210> 143  
 <211> 961  
 <212> DNA  
 <213> Homo Sapien

<400> 143

```

ctagagagta tagggcagaa ggatggcaga tgagtgactc cacatccaga 50
gctgcctccc tttaatccag gatcctgtcc ttcctgtcct gtaggagtgc 100
ctgttgccag tgtggggtga gacaagtttg tcccacaggg ctgtctgagc 150
agataagatt aagggtctggg tctgtgctca attaactcct gtgggcacgg 200
gggctgggaa gagcaaagtc agcgggtgcct acagtcagca ccatgctggg 250
cctgccgtgg aaggaggttc tgtcctgggc gctgctgctg cttctcttag 300
gctcccagat cctgctgata tatgcctggc atttccacga gcaaagggac 350
tgtgatgaac acaatgtcat ggctcgttac ctccctgcc aagtggagtt 400
tgctgtccac acattcaacc aacagagcaa ggactactat gcctacagac 450
tggggcacat cttgaattcc tggaaggagc aggtggagtc caagactgta 500
ttctcaatgg agctactgct ggggagaact aggtgtggga aatttgaaga 550
cgacattgac aactgccatt tccaagaaag cacagagctg aacaatactt 600
tcacctgctt cttcaccatc agcaccaggc cctggatgac tcagttcagc 650
ctcctgaaca agacctgctt ggagggattc cactgagtga aaccactca 700
caggcttgtc catgtgctgc tcccacattc cgtggacatc agcactactc 750
tcctgaggac tcttcagtgg ctgagcagct ttggacttgt ttgttatact 800
attttgcatt tgtttgagat ctcatatcag tgtttttagaa aatccacaca 850
tcttgagcct aatcatgtag tgtagatcat taaacatcag cattttaaga 900
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 950
aaaaaaaaa a 961

```

```

<210> 144
<211> 147
<212> PRT
<213> Homo Sapien

```

```

<400> 144
Met Leu Gly Leu Pro Trp Lys Gly Gly Leu Ser Trp Ala Leu Leu
 1             5             10             15
Leu Leu Leu Leu Gly Ser Gln Ile Leu Leu Ile Tyr Ala Trp His
          20             25             30
Phe His Glu Gln Arg Asp Cys Asp Glu His Asn Val Met Ala Arg
          35             40             45
Tyr Leu Pro Ala Thr Val Glu Phe Ala Val His Thr Phe Asn Gln
          50             55             60

```

Gln	Ser	Lys	Asp	Tyr	Tyr	Ala	Tyr	Arg	Leu	Gly	His	Ile	Leu	Asn	65	70	75
Ser	Trp	Lys	Glu	Gln	Val	Glu	Ser	Lys	Thr	Val	Phe	Ser	Met	Glu	80	85	90
Leu	Leu	Leu	Gly	Arg	Thr	Arg	Cys	Gly	Lys	Phe	Glu	Asp	Asp	Ile	95	100	105
Asp	Asn	Cys	His	Phe	Gln	Glu	Ser	Thr	Glu	Leu	Asn	Asn	Thr	Phe	110	115	120
Thr	Cys	Phe	Phe	Thr	Ile	Ser	Thr	Arg	Pro	Trp	Met	Thr	Gln	Phe	125	130	135
Ser	Leu	Leu	Asn	Lys	Thr	Cys	Leu	Glu	Gly	Phe	His				140	145	

<210> 145  
 <211> 1157  
 <212> DNA  
 <213> Homo Sapien

<400> 145  
 ctgtgcagct cgaggctcca gaggcacact ccagagagag ccaaggttct 50  
 gacgcgatga ggaagcacct gagctggtgg tggctggcca ctgtctgcat 100  
 gctgctcttc agccacctct ctgcggtcca gacgaggggc atcaagcaca 150  
 gaatcaagtg gaaccggaag gccctgcccc gcaactgcccc gatcactgag 200  
 gccaggtgg ctgagaaccg cccgggagcc ttcataaagc aaggccgcaa 250  
 gctcgacatt gacttcggag ccgagggcaa caggtactac gaggccaact 300  
 actggcagtt cccgatggc atccactaca acggctgctc tgaggctaata 350  
 gtgaccaagg aggcatttgt caccggctgc atcaatgcca cccagggcggc 400  
 gaaccagggg gagttccaga agccagacaa caagctccac cagcaggtgc 450  
 tctggcggct ggtccaggag ctctgctccc tcaagcattg cgagttttgg 500  
 ttggagaggg gcgcaggact tcgggtcacc atgcaccagc cagtgtcct 550  
 ctgccttctg gctttgatct ggctcatggt gaaataagct tgccaggagg 600  
 ctggcagtag agagcgcagc agcgagcaaa tcttggaag tgaccagct 650  
 cttctcccc aaaccacgc gtgttctgaa ggtgcccagg agcggcgatg 700  
 cactcgact gcaaatgccg ctcccacgta tgcgccctgg tatgtgcctg 750  
 cgttctgata gatgggggac tgtggcttct ccgtcactcc attctcagcc 800  
 cctagcagag cgtctggcac actagattag tagtaaagtc ttgatgagaa 850

gaacacatca ggcactgcmc cacctgcttc acagtacttc ccaacaactc 900  
 ttagaggtag gtgtattccc gttttacaga taaggaaact gagggccaga 950  
 gagctgaagt actgcaccca gcatcacca gctagaaagtgc gcagagccag 1000  
 gattcaaccc tggcttgtct aaccccaggt tttctgctct gtccaattcc 1050  
 agagctgtct ggtgatcact ttatgtctca cagggaccca catccaaaca 1100  
 tgtatctcta atgaaattgt gaaagctcca tgtttagaaa taaatgaaaa 1150  
 cacctga 1157

<210> 146  
 <211> 176  
 <212> PRT  
 <213> Homo Sapien

<400> 146  
 Met Arg Lys His Leu Ser Trp Trp Trp Leu Ala Thr Val Cys Met  
     1                    5                    10                    15  
 Leu Leu Phe Ser His Leu Ser Ala Val Gln Thr Arg Gly Ile Lys  
                     20                    25                    30  
 His Arg Ile Lys Trp Asn Arg Lys Ala Leu Pro Ser Thr Ala Gln  
                     35                    40                    45  
 Ile Thr Glu Ala Gln Val Ala Glu Asn Arg Pro Gly Ala Phe Ile  
                     50                    55                    60  
 Lys Gln Gly Arg Lys Leu Asp Ile Asp Phe Gly Ala Glu Gly Asn  
                     65                    70                    75  
 Arg Tyr Tyr Glu Ala Asn Tyr Trp Gln Phe Pro Asp Gly Ile His  
                     80                    85                    90  
 Tyr Asn Gly Cys Ser Glu Ala Asn Val Thr Lys Glu Ala Phe Val  
                     95                    100                    105  
 Thr Gly Cys Ile Asn Ala Thr Gln Ala Ala Asn Gln Gly Glu Phe  
                     110                    115                    120  
 Gln Lys Pro Asp Asn Lys Leu His Gln Gln Val Leu Trp Arg Leu  
                     125                    130                    135  
 Val Gln Glu Leu Cys Ser Leu Lys His Cys Glu Phe Trp Leu Glu  
                     140                    145                    150  
 Arg Gly Ala Gly Leu Arg Val Thr Met His Gln Pro Val Leu Leu  
                     155                    160                    165  
 Cys Leu Leu Ala Leu Ile Trp Leu Met Val Lys  
                     170                    175

<210> 147  
 <211> 333  
 <212> DNA  
 <213> Homo Sapien

<400> 147  
 gccttggcct cccaaagggc tgggattata ggcgtgacca ccatgtctgg 50  
 tccagagtct catttctga tgatttatag actcaaagaa aactcatgtt 100  
 cagaagctct cttctcttct ggctctctct ctgtcttctt tccctctttc 150  
 ttcttatttt aattagtagc atctactcag agtcatgcaa gctggaaatc 200  
 tttcattttg cttgtcagtg gggtaggtca ctgagtcctta gtttttattt 250  
 tttgaaattt caactttcag attcaggggg tacatgtgaa ggtttgtttt 300  
 atgagtatat tgcagtatgc tgaggtttgg ggt 333

<210> 148  
 <211> 73  
 <212> PRT  
 <213> Homo Sapien

<400> 148  
 Met Phe Arg Ser Ser Leu Leu Phe Trp Pro Pro Leu Cys Leu Leu  
 1 5 10 15  
 Ser Leu Phe Leu Leu Ile Leu Ile Ser Ser Ile Tyr Ser Glu Ser  
 20 25 30  
 Cys Lys Leu Glu Ile Phe His Phe Ala Cys Gln Trp Gly Arg Ser  
 35 40 45  
 Leu Ser Leu Ser Phe Tyr Phe Leu Lys Phe Gln Leu Ser Asp Ser  
 50 55 60  
 Gly Gly Thr Cys Glu Gly Leu Phe Tyr Glu Tyr Ile Ala  
 65 70

<210> 149  
 <211> 1893  
 <212> DNA  
 <213> Homo Sapien

<400> 149  
 gtctccgct cacaggaact tcagcaccca caggcgaggac agcgctcccc 50  
 tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100  
 ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc ccctctcccg 150  
 cccacacccc accctcctgg ctcttctgt ttttactcct ccttttcatt 200  
 cataacaaaa gctacagctc caggagccca gcgcggggct gtgaccaag 250

ccgagcgtgg aagaatgggg ttctcggga ccggcacttg gattctggtg 300  
 ttagtgtccc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350  
 atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400  
 ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450  
 aagccaggtc agagcaacta ttcttttggt gataacttga acctgctaaa 500  
 ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550  
 gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600  
 aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650  
 taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700  
 taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750  
 aatgacagag ccgtgtttga caagattggt tctaaactac ttaatctcgg 800  
 ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850  
 ttttacaaaa attaattctca aaggaagcca acaattatga ggaggatccc 900  
 aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950  
 agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000  
 atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050  
 actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100  
 tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150  
 aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200  
 atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250  
 aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300  
 atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350  
 catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400  
 atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450  
 gaaagacaga tgaacccaaa ggaaaaacag aagcctatctt ggaagccatc 1500  
 agaaaaaata ttgaatggtt gaagaaacat gacaaaaagg gaaataaaga 1550  
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600  
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650  
 cgcattttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700

ctgttttcaga aaacataata tagcttaaaa cactttctaata tctgtgatta 1750  
 aaatTTTTTtg acccaaggggt tattagaaaag tgctgaattt acagtagtta 1800  
 acctttttaca agtggttataa acatagcttt cttcccgtaa aaactatctg 1850  
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 150  
 <211> 468  
 <212> PRT  
 <213> Homo Sapien

<400> 150  
 Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu  
 1 5 10 15  
 Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser  
 20 25 30  
 Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln  
 35 40 45  
 Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro  
 50 55 60  
 Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu  
 65 70 75  
 Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu  
 80 85 90  
 Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val  
 95 100 105  
 Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr  
 110 115 120  
 Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro  
 125 130 135  
 Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp  
 140 145 150  
 Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg  
 155 160 165  
 Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu  
 170 175 180  
 Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu  
 185 190 195  
 Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu  
 200 205 210  
 Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys

	215		220		225
Ile Pro Glu Lys Val Thr Pro Met Ala	230	Ala Ile Gln Asp Gly Leu	240		
Ala Lys Gly Glu Asn Asp Glu Thr Val Ser Asn Thr Leu Thr Leu	245	250	255		
Thr Asn Gly Leu Glu Arg Arg Thr Lys Thr Tyr Ser Glu Asp Asn	260	265	270		
Phe Glu Glu Leu Gln Tyr Phe Pro Asn Phe Tyr Ala Leu Leu Lys	275	280	285		
Ser Ile Asp Ser Glu Lys Glu Ala Lys Glu Lys Glu Thr Leu Ile	290	295	300		
Thr Ile Met Lys Thr Leu Ile Asp Phe Val Lys Met Met Val Lys	305	310	315		
Tyr Gly Thr Ile Ser Pro Glu Glu Gly Val Ser Tyr Leu Glu Asn	320	325	330		
Leu Asp Glu Met Ile Ala Leu Gln Thr Lys Asn Lys Leu Glu Lys	335	340	345		
Asn Ala Thr Asp Asn Ile Ser Lys Leu Phe Pro Ala Pro Ser Glu	350	355	360		
Lys Ser His Glu Glu Thr Asp Ser Thr Lys Glu Glu Ala Ala Lys	365	370	375		
Met Glu Lys Glu Tyr Gly Ser Leu Lys Asp Ser Thr Lys Asp Asp	380	385	390		
Asn Ser Asn Pro Gly Gly Lys Thr Asp Glu Pro Lys Gly Lys Thr	395	400	405		
Glu Ala Tyr Leu Glu Ala Ile Arg Lys Asn Ile Glu Trp Leu Lys	410	415	420		
Lys His Asp Lys Lys Gly Asn Lys Glu Asp Tyr Asp Leu Ser Lys	425	430	435		
Met Arg Asp Phe Ile Asn Lys Gln Ala Asp Ala Tyr Val Glu Lys	440	445	450		
Gly Ile Leu Asp Lys Glu Glu Ala Glu Ala Ile Lys Arg Ile Tyr	455	460	465		
Ser Ser Leu					

<210> 151  
 <211> 2598  
 <212> DNA  
 <213> Homo Sapien



<400> 151

cggctcgagg ctcccgccag gagaaaggaa cattctgagg ggagtctaca 50  
ccctgtggag ctcaagatgg tcctgagtg ggcgctgtgc ttccgaatga 100  
aggactcggc attgaagggtg ctttatctgc ataataacca gcttctagct 150  
ggagggctgc atgcagggaa ggtcattaaa ggtgaagaga tcagcgtggt 200  
ccccaatcgg tggctggatg ccagcctgtc ccccgtcac ctgggtgtcc 250  
aggggtggaag ccagtgcctg tcatgtgggg tggggcagga gccgactcta 300  
acactagagc cagtgaacat catggagctc tatcttggtg ccaaggaatc 350  
caagagcttc accttctacc ggcgggacat ggggctcacc tccagcttcg 400  
agtcggctgc ctaccgggc tggttcctgt gcacgggtgcc tgaagccgat 450  
cagcctgtca gactcaccca gcttcccgag aatgggtggct ggaatgcccc 500  
catcacagac ttctacttcc agcagtgtga ctagggcaac gtgcccccca 550  
gaactccctg ggcagagcca gctcgggtga ggggtgagtg gaggagaccc 600  
atggcggaca atcactctct ctgctctcag gacccccacg tctgacttag 650  
tgggcacctg accactttgt cttctggttc ccagtttgga taaattctga 700  
gatttgagc tcagtccacg gtcctcccc actggatggt gctactgctg 750  
tggaaccttg taaaaacat gtggggtaaa ctgggaataa catgaaaaga 800  
tttctgtggg ggtgggggtg gggagtggg ggaatcattc ctgcttaatg 850  
gtaactgaca agtgttaccc tgagccccgc aggccaaccc atccccagtt 900  
gagccttata gggtcagtag ctctccacat gaagtcctgt cactcaccac 950  
tgtgcaggag agggaggtg tcatagagtc agggatctat ggcccttggc 1000  
ccagccccac ccccttcct ttaatcctgc cactgtcata tgctaccttt 1050  
cctatctctt cctcatcat cttgttggtg gcatgaggag gtggtgatgt 1100  
cagaagaaat ggctcgagct cagaagataa aagataagta gggtatgctg 1150  
atcctctttt aaaaacccaa gatacaatca aaatcccaga tgctggtctc 1200  
tattcccatg aaaaagtgt catgacatat tgagaagacc tacttacaaa 1250  
gtggcatata ttgcaattta ttttaattaa aagataccta tttatatatt 1300  
tctttataga aaaaagtctg gaagagttaa cttcaattgt agcaatgtca 1350  
gggtggtggc agtatagggt atttttcttt taattctgtt aatttatctg 1400

tatttcctaa tttttctaca atgaagatga attccttgta taaaaataag 1450  
aaaagaaatt aatcttgagg taagcagagc agacatcatc tctgattgtc 1500  
ctcagcctcc acttccccag agtaaattca aattgaatcg agctctgctg 1550  
ctctggttgg ttgtagtagt gatcaggaaa cagatctcag caaagccact 1600  
gaggaggagg ctgtgctgag tttgtgtggc tggaatctct gggtaaggaa 1650  
cttaaagaac aaaaatcatc tggttaattct ttcctagaag gatcacagcc 1700  
cctgggattc caaggcattg gatccagtct ctaagaaggc tgctgtactg 1750  
gttgaattgt gtccccctca aattcacatc cttcttgga tctcagtctg 1800  
tgagttttatt tggagataag gtctctgcag atgtagttag ttaagacaag 1850  
gtcatgctgg atgaaggtag acctaaattc aatatgactg gtttccttgt 1900  
atgaaaagga gaggacacag agacagagga gacgcgggga agactatgta 1950  
aagatgaagg cagagatcgg agttttgcag ccacaagcta agaaacacca 2000  
aggattgtgg caaccatcag aagcttgga gagggcaaaga agaattcttc 2050  
cctagaggct ttagagggat aacggctctg ctgaaacctt aatctcagac 2100  
ttccagcctc ctgaacgaag aaagaataaa tttcggctgt ttttaagccac 2150  
caaggataat tggttacagc agctctagga aactaataca gctgctaaaa 2200  
tgatccctgt ctctctgtgt ttacattctg tgtgtgtccc ctcccacaat 2250  
gtaccaaagt tgtctttgtg accaatagaa tatggcagaa gtgatggcat 2300  
gccacttcca agattaggtt ataaaagaca ctgcagcttc tacttgagcc 2350  
ctctctctct gccaccacc gcccctaact tatcttggt cactcgctct 2400  
gggggaagct agctgccatg ctatgagcag gcctataaag agacttacgt 2450  
ggtaaaaaat gaagtctcct gccacagcc acattagtga acctagaagc 2500  
agagactctg tgagataatc gatgtttgtt gttttaagtt gctcagtttt 2550  
ggtctaactt gttatgcagc aatagataaa taatatgcag agaaagag 2598

<210> 152

<211> 155

<212> PRT

<213> Homo Sapien

<400> 152

Met	Val	Leu	Ser	Gly	Ala	Leu	Cys	Phe	Arg	Met	Lys	Asp	Ser	Ala
1					5				10					15

Leu	Lys	Val	Leu	Tyr	Leu	His	Asn	Asn	Gln	Leu	Leu	Ala	Gly	Gly	
				20					25					30	
Leu	His	Ala	Gly	Lys	Val	Ile	Lys	Gly	Glu	Glu	Ile	Ser	Val	Val	
				35					40					45	
Pro	Asn	Arg	Trp	Leu	Asp	Ala	Ser	Leu	Ser	Pro	Val	Ile	Leu	Gly	
				50					55					60	
Val	Gln	Gly	Gly	Ser	Gln	Cys	Leu	Ser	Cys	Gly	Val	Gly	Gln	Glu	
				65					70					75	
Pro	Thr	Leu	Thr	Leu	Glu	Pro	Val	Asn	Ile	Met	Glu	Leu	Tyr	Leu	
				80					85					90	
Gly	Ala	Lys	Glu	Ser	Lys	Ser	Phe	Thr	Phe	Tyr	Arg	Arg	Asp	Met	
				95					100					105	
Gly	Leu	Thr	Ser	Ser	Phe	Glu	Ser	Ala	Ala	Tyr	Pro	Gly	Trp	Phe	
				110					115					120	
Leu	Cys	Thr	Val	Pro	Glu	Ala	Asp	Gln	Pro	Val	Arg	Leu	Thr	Gln	
				125					130					135	
Leu	Pro	Glu	Asn	Gly	Gly	Trp	Asn	Ala	Pro	Ile	Thr	Asp	Phe	Tyr	
				140					145					150	
Phe	Gln	Gln	Cys	Asp											
				155											

<210> 153  
 <211> 1152  
 <212> DNA  
 <213> Homo Sapien

<400> 153  
 cttcagaaca gggttctcctt ccccagtcac cagttgctcg agttagaatt 50  
 gtctgcaatg gccgccttgc agaaatctgt gagctctttc cttatgggga 100  
 ccctggccac cagctgcctc cttctcttgg ccctcttggt acagggagga 150  
 gcagctgcgc ccatcagctc ccaactgcagg cttgacaagt ccaacttcca 200  
 gcagccctat atcaccaacc gcaccttcat gctggctaag gaggctagct 250  
 tggctgataa caacacagac gttcgtctca ttggggagaa actgttccac 300  
 ggagtcagta tgagtgaagc ctgctatctg atgaagcagg tgctgaactt 350  
 cacccttgaa gaagtgtgtg tccctcaatc tgataggttc cagccttata 400  
 tgcaggaggt ggtgcccttc ctggccaggc tcagcaacag gctaagcaca 450  
 tgtcatattg aaggtgatga cctgcatatc cagaggaatg tgcaaaagct 500  
 gaaggacaca gtgaaaaagc ttggagagag tggagagatc aaagcaattg 550

gagaactgga tttgctgttt atgtctctga gaaatgcctg catttgacca 600  
gagcaaagct gaaaaatgaa taactaacc cctttccctg ctagaaataa 650  
caattagatg ccccaaagcg atttttttta accaaaagga agatgggaag 700  
ccaaactcca tcatgatggg tggattccaa atgaaccctt gcgtagtta 750  
caaaggaaac caatgccact tttgtttata agaccagaag gtagactttc 800  
taagcataga tatttattga taacatttca ttgtaactgg tgttctatac 850  
acagaaaaca atttatTTTT taaataattg tctttttcca taaaaaagat 900  
tactttccat tccttttaggg gaaaaaacc ctaaataagct tcatgtttcc 950  
ataatcagta ctttatatTTT ataaatgtat ttattattat tataagactg 1000  
cattttatTTT atatcatttt attaatatgg atttatTTT agaaacatca 1050  
ttcgatattg ctacttgagt gtaaggctaa tattgatatt tatgacaata 1100  
attatagagc tataacatgt ttatttgacc tcaataaaca cttggatatc 1150  
cc 1152

<210> 154  
<211> 179  
<212> PRT  
<213> Homo Sapien

<400> 154  
Met Ala Ala Leu Gln Lys Ser Val Ser Ser Phe Leu Met Gly Thr  
1 5 10 15  
Leu Ala Thr Ser Cys Leu Leu Leu Leu Ala Leu Leu Val Gln Gly  
20 25 30  
Gly Ala Ala Ala Pro Ile Ser Ser His Cys Arg Leu Asp Lys Ser  
35 40 45  
Asn Phe Gln Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala  
50 55 60  
Lys Glu Ala Ser Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile  
65 70 75  
Gly Glu Lys Leu Phe His Gly Val Ser Met Ser Glu Arg Cys Tyr  
80 85 90  
Leu Met Lys Gln Val Leu Asn Phe Thr Leu Glu Glu Val Leu Phe  
95 100 105  
Pro Gln Ser Asp Arg Phe Gln Pro Tyr Met Gln Glu Val Val Pro  
110 115 120

Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu
				125					130					135
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp
				140					145					150
Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly
				155					160					165
Glu	Leu	Asp	Leu	Leu	Phe	Met	Ser	Leu	Arg	Asn	Ala	Cys	Ile	
				170					175					

<210> 155  
 <211> 1320  
 <212> DNA  
 <213> Homo Sapien

<400> 155  
 ggcttgctga aaataaaatc aggactccta acctgctcca gtcagcctgc 50  
 ttccacgagg cctgtcagtc agtgcccgac ttgtgactga gtgtgcagtg 100  
 cccagcatgt accaggtcag tgcagagggc tgctgagggg ctgtgctgag 150  
 agggagagga gcagagatgc tgctgagggg ggagggaggc caagctgcca 200  
 ggtttggggc tgggggccaa gtggagttag aaactgggat cccaggggga 250  
 ggggtgcagat gagggagcga cccagattag gtgaggacag ttctctcatt 300  
 agccttttcc tacaggtggt tgcattcttg gcaatggtca tgggaacca 350  
 cacctacagc cactggccca gctgctgccc cagcaaaggg caggacacct 400  
 ctgaggagct gctgaggtgg agcactgtgc ctgtgcctcc cctagagcct 450  
 gctaggccca accgccacc agagtctgtg agggccagtg aagatggacc 500  
 cctcaacagc agggccatct cccctggag atatgagttg gacagagact 550  
 tgaaccggct ccccaggac ctgtaccacg cccgttgctt gtgcccgcac 600  
 tgcgtcagcc tacagacagg ctcccatatg gacccccggg gcaactcgga 650  
 gctgctctac cacaaccaga ctgtcttcta caggcggcca tgccatggcg 700  
 agaagggcac ccacaagggc tactgcctgg agcgcaggct gtaccgtgtt 750  
 tccttagctt gtgtgtgtgt gcgccccgtg gtgatgggct agccggacct 800  
 gctggaggct ggtccctttt tgggaaacct ggagccagggt gtacaaccac 850  
 ttgcatgaa gggccaggat gccagatgc ttggcccctg tgaagtgtg 900  
 tctggagcag caggatcccc ggacaggatg gggggctttg gggaaaacct 950  
 gcacttctgc acattttgaa aagagcagct gctgcttagg gccgccgga 1000

gctgggtgtcc tgtcattttc tctcaggaaa gggttttcaaa gttctgcca 1050  
 tttctggagg ccaccactcc tgtctcttcc tcttttccca tcccctgcta 1100  
 ccctggccca gcacaggcac tttctagata tttccccctt gctggagaag 1150  
 aaagagcccc tggttttatt tgtttgttta ctcactcactc agtgagcatc 1200  
 tactttgggt gcattctagt gtagttacta gtcttttgac atggatgatt 1250  
 ctgaggagga agctgttatt gaatgtatag agatttatcc aaataaatat 1300  
 ctttatttaa aaatgaaaaa 1320

<210> 156  
 <211> 177  
 <212> PRT  
 <213> Homo Sapien

<400> 156  
 Met Arg Glu Arg Pro Arg Leu Gly Glu Asp Ser Ser Leu Ile Ser  
 1 5 10 15  
 Leu Phe Leu Gln Val Val Ala Phe Leu Ala Met Val Met Gly Thr  
 20 25 30  
 His Thr Tyr Ser His Trp Pro Ser Cys Cys Pro Ser Lys Gly Gln  
 35 40 45  
 Asp Thr Ser Glu Glu Leu Leu Arg Trp Ser Thr Val Pro Val Pro  
 50 55 60  
 Pro Leu Glu Pro Ala Arg Pro Asn Arg His Pro Glu Ser Cys Arg  
 65 70 75  
 Ala Ser Glu Asp Gly Pro Leu Asn Ser Arg Ala Ile Ser Pro Trp  
 80 85 90  
 Arg Tyr Glu Leu Asp Arg Asp Leu Asn Arg Leu Pro Gln Asp Leu  
 95 100 105  
 Tyr His Ala Arg Cys Leu Cys Pro His Cys Val Ser Leu Gln Thr  
 110 115 120  
 Gly Ser His Met Asp Pro Arg Gly Asn Ser Glu Leu Leu Tyr His  
 125 130 135  
 Asn Gln Thr Val Phe Tyr Arg Arg Pro Cys His Gly Glu Lys Gly  
 140 145 150  
 Thr His Lys Gly Tyr Cys Leu Glu Arg Arg Leu Tyr Arg Val Ser  
 155 160 165  
 Leu Ala Cys Val Cys Val Arg Pro Arg Val Met Gly  
 170 175

<210> 157  
<211> 1515  
<212> DNA  
<213> Homo Sapien

<400> 157  
ccggcgatgt cgctcgtgct gctaagcctg gccgcgctgt gcaggagcgc 50  
cgtaccccca gagccgaccg ttcaatgtgg ctctgaaact gggccatctc 100  
cagagtggat gctacaacat gatctaatacc ccggagactt gagggacctc 150  
cgagtagaac ctgtttacaac tagtggttgca acaggggact attcaatttt 200  
gatgaatgta agctgggtac tccgggcaga tgccagcatc cgcttggtga 250  
agggcaccaa gatttgtgtg acgggcaaaa gcaacttcca gtcctacagc 300  
tgtgtgaggt gcaattacac agaggccttc cagactcaga ccagaccctc 350  
tgggtggtaaa tggacatttt cctacatcgg ctccctgta gagctgaaca 400  
cagtctatct cattggggcc cataatatcc ctaatgcaaa tatgaatgaa 450  
gatggccctt ccatgtctgt gaatttcacc tcaccaggct gcctagacca 500  
cataatgaaa tataaaaaaa agtgtgtcaa ggccggaagc ctgtgggatac 550  
cgaacatcac tgcttgtaag aagaatgagg agacagtaga agtgaacttc 600  
acaaccactc ccctgggaaa cagatacatg gctcttatcc aacacagcac 650  
tatcatcggg ttttctcagg tgtttgagcc acaccagaag aaacaaacgc 700  
gagcttcagt ggtgattcca gtgactgggg atagtgaagg tgctacggtg 750  
cagctgactc catatcttcc tacttgtggc agcgactgca tccgacataa 800  
aggaacagtt gtgctctgcc cacaacagg cgctcccttc cctctggata 850  
acaacaaaag caagccggga ggctggctgc ctctcctcct gctgtctctg 900  
ctggtggcca catgggtgct ggtggcaggg atctatctaa tgtggaggca 950  
cgaaaggatc aagaagactt ccttttctac caccacacta ctgccccca 1000  
ttaaggttct tgtggtttac ccatctgaaa tatgtttcca tcacacaatt 1050  
tggtacttca ctgaatttct tcaaaaccat tgcagaagtg aggtcatcct 1100  
tgaaaagtgg cagaaaaaga aaatagcaga gatgggtcca gtgcagtggc 1150  
ttgccactca aaagaaggca gcagacaaaag tcgtcttcct tctttccaat 1200  
gacgtcaaca gtgtgtgcga tggtagctgt ggcaagagcg agggcagtcc 1250  
cagtgagaac tctcaagacc tcttccccct tgcttttaac cttttctgca 1300

gtgatctaag aagccagatt catctgcaca aatacgtggt ggtctacttt 1350  
agagagattg atacaaaaga cgattacaat gctctcagtg tctgccccaa 1400  
gtaccacctc atgaaggatg ccactgcttt ctgtgcagaa cttctccatg 1450  
tcaagcagca ggtgtcagca ggaaaaagat cacaagcctg ccacgatggc 1500  
tgctgctcct tgtag 1515

<210> 158  
<211> 502  
<212> PRT  
<213> Homo Sapien

<400> 158  
Met Ser Leu Val Leu Leu Ser Leu Ala Ala Leu Cys Arg Ser Ala  
1 5 10 15  
Val Pro Arg Glu Pro Thr Val Gln Cys Gly Ser Glu Thr Gly Pro  
20 25 30  
Ser Pro Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu  
35 40 45  
Arg Asp Leu Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly  
50 55 60  
Asp Tyr Ser Ile Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp  
65 70 75  
Ala Ser Ile Arg Leu Leu Lys Ala Thr Lys Ile Cys Val Thr Gly  
80 85 90  
Lys Ser Asn Phe Gln Ser Tyr Ser Cys Val Arg Cys Asn Tyr Thr  
95 100 105  
Glu Ala Phe Gln Thr Gln Thr Arg Pro Ser Gly Gly Lys Trp Thr  
110 115 120  
Phe Ser Tyr Ile Gly Phe Pro Val Glu Leu Asn Thr Val Tyr Phe  
125 130 135  
Ile Gly Ala His Asn Ile Pro Asn Ala Asn Met Asn Glu Asp Gly  
140 145 150  
Pro Ser Met Ser Val Asn Phe Thr Ser Pro Gly Cys Leu Asp His  
155 160 165  
Ile Met Lys Tyr Lys Lys Lys Cys Val Lys Ala Gly Ser Leu Trp  
170 175 180  
Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu Thr Val Glu  
185 190 195  
Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met Ala Leu



	200		205		210
Ile Gln His Ser Thr	Ile Ile Gly Phe	Ser Gln Val Phe Glu Pro			
215		220		225	
His Gln Lys Lys Gln Thr Arg Ala Ser	Val Val Ile Pro Val Thr				
230		235		240	
Gly Asp Ser Glu Gly Ala Thr Val Gln	Leu Thr Pro Tyr Phe Pro				
245		250		255	
Thr Cys Gly Ser Asp Cys Ile Arg His	Lys Gly Thr Val Val Leu				
260		265		270	
Cys Pro Gln Thr Gly Val Pro Phe Pro	Leu Asp Asn Asn Lys Ser				
275		280		285	
Lys Pro Gly Gly Trp Leu Pro Leu Leu	Leu Leu Ser Leu Leu Val				
290		295		300	
Ala Thr Trp Val Leu Val Ala Gly Ile	Tyr Leu Met Trp Arg His				
305		310		315	
Glu Arg Ile Lys Lys Thr Ser Phe Ser	Thr Thr Thr Leu Leu Pro				
320		325		330	
Pro Ile Lys Val Leu Val Val Tyr Pro	Ser Glu Ile Cys Phe His				
335		340		345	
His Thr Ile Cys Tyr Phe Thr Glu Phe	Leu Gln Asn His Cys Arg				
350		355		360	
Ser Glu Val Ile Leu Glu Lys Trp Gln	Lys Lys Lys Ile Ala Glu				
365		370		375	
Met Gly Pro Val Gln Trp Leu Ala Thr	Gln Lys Lys Ala Ala Asp				
380		385		390	
Lys Val Val Phe Leu Leu Ser Asn Asp	Val Asn Ser Val Cys Asp				
395		400		405	
Gly Thr Cys Gly Lys Ser Glu Gly Ser	Pro Ser Glu Asn Ser Gln				
410		415		420	
Asp Leu Phe Pro Leu Ala Phe Asn Leu	Phe Cys Ser Asp Leu Arg				
425		430		435	
Ser Gln Ile His Leu His Lys Tyr Val	Val Val Tyr Phe Arg Glu				
440		445		450	
Ile Asp Thr Lys Asp Asp Tyr Asn Ala	Leu Ser Val Cys Pro Lys				
455		460		465	
Tyr His Leu Met Lys Asp Ala Thr Ala	Phe Cys Ala Glu Leu Leu				
470		475		480	
His Val Lys Gln Gln Val Ser Ala Gly	Lys Arg Ser Gln Ala Cys				

485

490

495

His Asp Gly Cys Cys Ser Leu  
500

<210> 159  
<211> 535  
<212> DNA  
<213> Homo Sapien

<400> 159  
agccaccagc gcaacatgac agtgaagacc ctgcatggcc cagccatggt 50  
caagtacttg ctgctgtcga tattggggct tgcctttctg agtgaggcgg 100  
cagctcggaa aatccccaaa gtaggacata cttttttcca aaagcctgag 150  
agttgcccgc ctgtgccagg aggtagtatg aagcttgaca ttggcatcat 200  
caatgaaaac cagcgcgttt ccatgtcacg taacatcgag agccgctcca 250  
cctccccctg gaattacact gtcacttggg accccaaccg gtaccctctg 300  
gaagttgtac aggcccaagt taggaacttg ggctgcatca atgctcaagg 350  
aaaggaagac atctccatga attccgttcc catccagcaa gagaccctgg 400  
tcgtccggag gaagcaccaa ggctgctctg tttctttcca gttggagaag 450  
gtgctggtga ctgttggtg cacctgcgtc acccctgtca tccaccatgt 500  
gcagtaagag gtgcatatcc actcagctga agaag 535

<210> 160  
<211> 163  
<212> PRT  
<213> Homo Sapien

<400> 160  
Met Thr Val Lys Thr Leu His Gly Pro Ala Met Val Lys Tyr Leu  
1 5 10 15  
Leu Leu Ser Ile Leu Gly Leu Ala Phe Leu Ser Glu Ala Ala Ala  
20 25 30  
Arg Lys Ile Pro Lys Val Gly His Thr Phe Phe Gln Lys Pro Glu  
35 40 45  
Ser Cys Pro Pro Val Pro Gly Gly Ser Met Lys Leu Asp Ile Gly  
50 55 60  
Ile Ile Asn Glu Asn Gln Arg Val Ser Met Ser Arg Asn Ile Glu  
65 70 75  
Ser Arg Ser Thr Ser Pro Trp Asn Tyr Thr Val Thr Trp Asp Pro  
80 85 90

Asn	Arg	Tyr	Pro	Ser	Glu	Val	Val	Gln	Ala	Gln	Cys	Arg	Asn	Leu
				95					100					105
Gly	Cys	Ile	Asn	Ala	Gln	Gly	Lys	Glu	Asp	Ile	Ser	Met	Asn	Ser
				110					115					120
Val	Pro	Ile	Gln	Gln	Glu	Thr	Leu	Val	Val	Arg	Arg	Lys	His	Gln
				125					130					135
Gly	Cys	Ser	Val	Ser	Phe	Gln	Leu	Glu	Lys	Val	Leu	Val	Thr	Val
				140					145					150
Gly	Cys	Thr	Cys	Val	Thr	Pro	Val	Ile	His	His	Val	Gln		
				155					160					

<210> 161  
 <211> 2380  
 <212> DNA  
 <213> Homo Sapien

<400> 161  
 acactggcca aacaaaaacg aaagcactcc gtgctggaag taggaggaga 50  
 gtcaggactc ccaggacaga gagtgcacaa actaccacgc acagccccct 100  
 ccgccccctc tggaggctga agagggattc cagccccctgc caccacaga 150  
 cacgggctga ctgggggtgc tgccccctt gggggggggc agcacagggc 200  
 ctcaggcctg ggtgccacct ggcacctaga agatgcctgt gccctgggtc 250  
 ttgctgtcct tggcactggg ccgaagccca gtggtccttt ctctggagag 300  
 gcttgtgggg cctcaggacg ctaccactg ctctccgggc ctctcctgcc 350  
 gcctctggga cagtgcata ctctgcctgc ctggggacat cgtgcctgct 400  
 ccggggcccc tgctggcgcc tacgcacctg cagacagagc tgggtgctgag 450  
 gtgccagaag gagaccgact gtgacctctg tctgcgtgtg gctgtccact 500  
 tggccgtgca tgggactggg gaagagcctg aagatgagga aaagtgttga 550  
 ggagcagctg actcaggggt ggaggagcct aggaatgcct ctctccaggc 600  
 ccaagtcgtg ctctccttcc aggcctaccc tactgcccgc tgcgtcctgc 650  
 tggaggtgca agtgctgct gcccttgtgc agtttgggtca gtctgtgggc 700  
 tctgtggtat atgactgctt cgaggctgcc ctagggagtg aggtacgaat 750  
 ctggtcctat actcagccca ggtacgagaa ggaactcaac cacacacagc 800  
 agctgcctgc cctgccctgg ctcaacgtgt cagcagatgg tgacaacgtg 850  
 catctgggtc tgaatgtctc tgaggagcag cacttcgggc tctcctgta 900  
 ctggaatcag gtccagggcc ccccaaaacc ccggtggcac aaaaacctga 950

ctggaccgca gatcattacc ttgaaccaca cagacctggt tccctgcctc 1000  
 tgtattcagg tgtggcctct ggaacctgac tccgttagga cgaacatctg 1050  
 ccccttcagg gaggaccccc gcgcacacca gaacctctgg caagccgccc 1100  
 gactgcgact gctgacctg cagagctggc tgctggacgc accgtgctcg 1150  
 ctgcccgcag aagcggcact gtgctggcgg gctccgggtg gggacctctg 1200  
 ccagccactg gtcccaccgc tttcctggga gaacgtcact gtggacaagg 1250  
 ttctcgagtt ccatttgctg aaagggcacc ctaacctctg tgttcagggtg 1300  
 aacagctcgg agaagctgca gctgcaggag tgcttggtgg ctgactccct 1350  
 ggggcctctc aaagacgatg tgctactgtt ggagacacga ggcccccagg 1400  
 acaacagatc cctctgtgcc ttggaacca gtggctgtac ttcactaccc 1450  
 agcaaagcct ccacgagggc agctcgcctt ggagagtact tactacaaga 1500  
 cctgcagtca ggccagtgtc tgcagctatg ggacgatgac ttgggagcgc 1550  
 tatgggcctg ccccatggac aaatacatcc acaagcgctg ggccctcgtg 1600  
 tggctggcct gcctactctt tgccgctgcg ctttccctca tctccttct 1650  
 caaaaaggat cacgcgaaag ggtggctgag gctcttgaaa caggacgtcc 1700  
 gctcgggggc ggccgccagg ggccgcgcgg ctctgctcct ctactcagcc 1750  
 gatgactcgg gtttcgagcg cctggtgggc gccctggcgt cggccctgtg 1800  
 ccagctgccg ctgcgcgtgg ccgtagacct gtggagccgt cgtgaactga 1850  
 gcgcgcaggg gcccggtggct tggtttcacg cgcagcggcg ccagaccctg 1900  
 caggagggcg gcgtggtggt cttgctcttc tctcccgtg cggtggcgct 1950  
 gtgcagcgag tggctacagg atggggtgtc cgggcccggg gcgcacggcc 2000  
 cgcacgacgc cttccgcgcc tcgctcagct gcgtgctgcc cgacttcttg 2050  
 cagggccggg cgcccggcag ctacgtgggg gcctgcttcg acaggctgct 2100  
 ccacccggac gccgtaccg cccttttcg caccggtgcc gtcttcacac 2150  
 tgccctccca actgccagac ttctggggg cctgcagca gcctcgcgcc 2200  
 ccgcgttccg ggcggtcca agagagagcg gagcaagtgt cccgggccct 2250  
 tcagccagcc ctggatagct acttccatcc cccggggact cccgcgccgg 2300  
 gacgcggggt gggaccaggg gcgggacctg gggcggggga cgggacttaa 2350

ataaaggcag acgctgtttt tctaaaaaaa 2380

<210> 162

<211> 705

<212> PRT

<213> Homo Sapien

<400> 162

Met	Pro	Val	Pro	Trp	Phe	Leu	Leu	Ser	Leu	Ala	Leu	Gly	Arg	Ser
1				5					10					15

Pro	Val	Val	Leu	Ser	Leu	Glu	Arg	Leu	Val	Gly	Pro	Gln	Asp	Ala
			20					25						30

Thr	His	Cys	Ser	Pro	Gly	Leu	Ser	Cys	Arg	Leu	Trp	Asp	Ser	Asp
			35					40						45

Ile	Leu	Cys	Leu	Pro	Gly	Asp	Ile	Val	Pro	Ala	Pro	Gly	Pro	Val
			50					55						60

Leu	Ala	Pro	Thr	His	Leu	Gln	Thr	Glu	Leu	Val	Leu	Arg	Cys	Gln
			65					70						75

Lys	Glu	Thr	Asp	Cys	Asp	Leu	Cys	Leu	Arg	Val	Ala	Val	His	Leu
			80					85						90

Ala	Val	His	Gly	His	Trp	Glu	Glu	Pro	Glu	Asp	Glu	Glu	Lys	Phe
			95					100						105

Gly	Gly	Ala	Ala	Asp	Ser	Gly	Val	Glu	Glu	Pro	Arg	Asn	Ala	Ser
			110					115						120

Leu	Gln	Ala	Gln	Val	Val	Leu	Ser	Phe	Gln	Ala	Tyr	Pro	Thr	Ala
			125					130						135

Arg	Cys	Val	Leu	Leu	Glu	Val	Gln	Val	Pro	Ala	Ala	Leu	Val	Gln
			140					145						150

Phe	Gly	Gln	Ser	Val	Gly	Ser	Val	Val	Tyr	Asp	Cys	Phe	Glu	Ala
			155					160						165

Ala	Leu	Gly	Ser	Glu	Val	Arg	Ile	Trp	Ser	Tyr	Thr	Gln	Pro	Arg
			170					175						180

Tyr	Glu	Lys	Glu	Leu	Asn	His	Thr	Gln	Gln	Leu	Pro	Ala	Leu	Pro
			185					190						195

Trp	Leu	Asn	Val	Ser	Ala	Asp	Gly	Asp	Asn	Val	His	Leu	Val	Leu
			200					205						210

Asn	Val	Ser	Glu	Glu	Gln	His	Phe	Gly	Leu	Ser	Leu	Tyr	Trp	Asn
			215					220						225

Gln	Val	Gln	Gly	Pro	Pro	Lys	Pro	Arg	Trp	His	Lys	Asn	Leu	Thr
			230					235						240

Gly	Pro	Gln	Ile	Ile	Thr	Leu	Asn	His	Thr	Asp	Leu	Val	Pro	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

	245		250		255
Leu Cys Ile Gln Val Trp Pro Leu Glu	260	Pro Asp Ser Val Arg Thr	270		
Asn Ile Cys Pro Phe Arg Glu Asp Pro	275	Arg Ala His Gln Asn Leu	285		
Trp Gln Ala Ala Arg Leu Arg Leu Leu	290	Thr Leu Gln Ser Trp Leu	300		
Leu Asp Ala Pro Cys Ser Leu Pro Ala	305	Glu Ala Ala Leu Cys Trp	315		
Arg Ala Pro Gly Gly Asp Pro Cys Gln	320	Pro Leu Val Pro Pro Leu	330		
Ser Trp Glu Asn Val Thr Val Asp Lys	335	Val Leu Glu Phe Pro Leu	345		
Leu Lys Gly His Pro Asn Leu Cys Val	350	Gln Val Asn Ser Ser Glu	360		
Lys Leu Gln Leu Gln Glu Cys Leu Trp	365	Ala Asp Ser Leu Gly Pro	375		
Leu Lys Asp Asp Val Leu Leu Leu Glu	380	Thr Arg Gly Pro Gln Asp	390		
Asn Arg Ser Leu Cys Ala Leu Glu Pro	395	Ser Gly Cys Thr Ser Leu	405		
Pro Ser Lys Ala Ser Thr Arg Ala Ala	410	Arg Leu Gly Glu Tyr Leu	420		
Leu Gln Asp Leu Gln Ser Gly Gln Cys	425	Leu Gln Leu Trp Asp Asp	435		
Asp Leu Gly Ala Leu Trp Ala Cys Pro	440	Met Asp Lys Tyr Ile His	450		
Lys Arg Trp Ala Leu Val Trp Leu Ala	455	Cys Leu Leu Phe Ala Ala	465		
Ala Leu Ser Leu Ile Leu Leu Leu Lys	470	Lys Asp His Ala Lys Gly	480		
Trp Leu Arg Leu Leu Lys Gln Asp Val	485	Arg Ser Gly Ala Ala Ala	495		
Arg Gly Arg Ala Ala Leu Leu Leu Tyr	500	Ser Ala Asp Asp Ser Gly	510		
Phe Glu Arg Leu Val Gly Ala Leu Ala	515	Ser Ala Leu Cys Gln Leu	525		
Pro Leu Arg Val Ala Val Asp Leu Trp		Ser Arg Arg Glu Leu Ser			

530	535	540
Ala Gln Gly Pro Val Ala Trp Phe His	Ala Gln Arg Arg Gln Thr	
545	550	555
Leu Gln Glu Gly Gly Val Val Val Leu	Leu Phe Ser Pro Gly Ala	
560	565	570
Val Ala Leu Cys Ser Glu Trp Leu Gln	Asp Gly Val Ser Gly Pro	
575	580	585
Gly Ala His Gly Pro His Asp Ala Phe	Arg Ala Ser Leu Ser Cys	
590	595	600
Val Leu Pro Asp Phe Leu Gln Gly Arg	Ala Pro Gly Ser Tyr Val	
605	610	615
Gly Ala Cys Phe Asp Arg Leu Leu His	Pro Asp Ala Val Pro Ala	
620	625	630
Leu Phe Arg Thr Val Pro Val Phe Thr	Leu Pro Ser Gln Leu Pro	
635	640	645
Asp Phe Leu Gly Ala Leu Gln Gln Pro	Arg Ala Pro Arg Ser Gly	
650	655	660
Arg Leu Gln Glu Arg Ala Glu Gln Val	Ser Arg Ala Leu Gln Pro	
665	670	675
Ala Leu Asp Ser Tyr Phe His Pro Pro	Gly Thr Pro Ala Pro Gly	
680	685	690
Arg Gly Val Gly Pro Gly Ala Gly Pro	Gly Ala Gly Asp Gly Thr	
695	700	705

<210> 163  
 <211> 2478  
 <212> DNA  
 <213> Homo Sapien

<400> 163  
 gtcagtgcgg gaggccggtc agccaccaag atgactgaca gggttcagctc 50  
 tctgcagcac actaccctca agccacctga tgtgacctgt atctccaaag 100  
 tgagatcgat tcagatgatt gttcatccta cccccacgcc aatccgtgca 150  
 ggcgatggcc accggctaac cctggaagac atcttccatg acctgttcta 200  
 ccacttagag ctccaggtca accgcaccta ccaaatgcac cttggaggga 250  
 agcagagaga atatgagttc ttcggcctga cccctgacac agagttcctt 300  
 ggccaccatca tgatttgcgt tcccacctgg gcccaaggaga gtgcccccta 350  
 catgtgccga gtgaagacac tgccagaccg gacatggacc tactccttct 400

ccggagcctt cctgtttctcc atgggcttcc tcgtcgcagt actctgctac 450  
 ctgagctaca gatatgtcac caagccgcct gcacctccca actccctgaa 500  
 cgtccagcga gtccctgactt tccagccgct gcgcttcata caggagcacg 550  
 tcctgatccc tgtctttgac ctccagcggcc ccagcagttct ggcccagcct 600  
 gtccagttact cccagatcag ggtgtctgga cccagggagc ccgcaggagc 650  
 tccacagcgg catagcctgt ccgagatcac ctacttaggg cagccagaca 700  
 tctccatcct ccagccctcc aacgtgccac ctccccagat cctctcccca 750  
 ctgtcctatg ccccaaacgc tgcccctgag gtcggggccc cctcctatgc 800  
 acctcaggtg acccccgaag ctcaattccc attctacgcc ccacaggcca 850  
 tctctaaggt ccagccttcc tcctatgccc ctcaagccac tccggacagc 900  
 tggcctccct cctatggggt atgcatggaa ggttctggca aagactcccc 950  
 cactgggaca ctttctagtc ctaaaccact taggcctaaa ggtcagcttc 1000  
 agaaagagcc accagctgga agctgcatgt taggtggcct ttctctgcag 1050  
 gaggtgacct ccttggctat ggaggaatcc caagaagcaa aatcattgca 1100  
 ccagcccctg gggatttgca cagacagaac atctgaccca aatgtgctac 1150  
 acagtgggga ggaagggaca ccacagtacc taaagggccca gctccccctc 1200  
 ctctcctcag tccagatcga gggccacccc atgtccctcc ctttgcaacc 1250  
 tccttcgggt ccatgttccc cctcggacca aggtccaagt ccctggggcc 1300  
 tgctggagtc ctttgtgtgt cccaaggatg aagccaagag cccagcccct 1350  
 gagacctcag acctggagca gccacagaa ctggattctc ttttcagagg 1400  
 cctggccctg actgtgcagt gggagtcctg aggggaatgg gaaaggcttg 1450  
 gtgcttcctc cctgtcccta cccagtgtca catccttggc tgtcaatccc 1500  
 atgcctgccc atgccacaca ctctgcgata tggcctcaga cgggtgccct 1550  
 tgagagaagc agagggagtg gcatgcaggg cccctgccat ggggtgcgctc 1600  
 ctcaccggaa caaagcagca tgataaggac tgcagcgggg gagctctggg 1650  
 gagcagcttg tgtagacaag cgcgtgctcg ctgagccctg caaggcagaa 1700  
 atgacagtgc aaggaggaaa tgcagggaaa ctcccagagt ccagagcccc 1750  
 acctcctaac accatggatt caaagtgtc aggggaatttg cctctccttg 1800  
 ccccatcctt ggccagtttc acaatctagc tcgacagagc atgaggcccc 1850



tgcctcttct gtcattgttc aaaggtggga agagagcctg gaaaagaacc 1900  
 aggcctggaa aagaaccaga aggaggctgg gcagaaccag aacaacctgc 1950  
 acttctgcca aggccagggc cagcaggacg gcaggactct agggaggggt 2000  
 gtggcctgca gctcattccc agccagggca actgcctgac gttgcacgat 2050  
 ttcagcttca ttcctctgat agaacaagc gaaatgcagg tccaccaggg 2100  
 agggagacac acāagccttt tctgcaggca ggagtttcag accctatcct 2150  
 gagaatgggg tttgaaagga aggtgagggc tgtggcccct ggacgggtac 2200  
 aataacacac tgtactgatg tcacaacttt gcaagctctg ccttgggttc 2250  
 agcccatctg ggctcaaatt ccagcctcac cactcacaag ctgtgtgact 2300  
 tcaaacaaat gaaatcagtg ccagaacct cggtttcctc atctgtaatg 2350  
 tggggatcat aacacctacc tcatggagtt gtggtgaaga tgaaatgaag 2400  
 tcatgtcttt aaagtgctta atagtgcctg gtacatgggc agtgcccaat 2450  
 aaacggtagc tatttaaaaa aaaaaaaaa 2478

<210> 164.  
 <211> 574  
 <212> PRT  
 <213> Homo Sapien

<400> 164  
 Met Arg Thr Leu Leu Thr Ile Leu Thr Val Gly Ser Leu Ala Ala  
 1 5 10 15  
 His Ala Pro Glu Asp Pro Ser Asp Leu Leu Gln His Val Lys Phe  
 20 25 30  
 Gln Ser Ser Asn Phe Glu Asn Ile Leu Thr Trp Asp Ser Gly Pro  
 35 40 45  
 Glu Gly Thr Pro Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr  
 50 55 60  
 Gly Glu Arg Asp Trp Val Ala Lys Lys Gly Cys Gln Arg Ile Thr  
 65 70 75  
 Arg Lys Ser Cys Asn Leu Thr Val Glu Thr Gly Asn Leu Thr Glu  
 80 85 90  
 Leu Tyr Tyr Ala Arg Val Thr Ala Val Ser Ala Gly Gly Arg Ser  
 95 100 105  
 Ala Thr Lys Met Thr Asp Arg Phe Ser Ser Leu Gln His Thr Thr  
 110 115 120  
 Leu Lys Pro Pro Asp Val Thr Cys Ile Ser Lys Val Arg Ser Ile

	125		130		135
Gln Met Ile Val	His Pro Thr Pro Thr	Pro Ile Arg Ala Gly Asp			
	140		145		150
Gly His Arg Leu	Thr Leu Glu Asp Ile	Phe His Asp Leu Phe Tyr			
	155		160		165
His Leu Glu Leu	Gln Val Asn Arg Thr	Tyr Gln Met His Leu Gly			
	170		175		180
Gly Lys Gln Arg	Glu Tyr Glu Phe Phe	Gly Leu Thr Pro Asp Thr			
	185		190		195
Glu Phe Leu Gly	Thr Ile Met Ile Cys	Val Pro Thr Trp Ala Lys			
	200		205		210
Glu Ser Ala Pro	Tyr Met Cys Arg Val	Lys Thr Leu Pro Asp Arg			
	215		220		225
Thr Trp Thr Tyr	Ser Phe Ser Gly Ala	Phe Leu Phe Ser Met Gly			
	230		235		240
Phe Leu Val Ala	Val Leu Cys Tyr Leu	Ser Tyr Arg Tyr Val Thr			
	245		250		255
Lys Pro Pro Ala	Pro Pro Asn Ser Leu	Asn Val Gln Arg Val Leu			
	260		265		270
Thr Phe Gln Pro	Leu Arg Phe Ile Gln	Glu His Val Leu Ile Pro			
	275		280		285
Val Phe Asp Leu	Ser Gly Pro Ser Ser	Leu Ala Gln Pro Val Gln			
	290		295		300
Tyr Ser Gln Ile	Arg Val Ser Gly Pro	Arg Glu Pro Ala Gly Ala			
	305		310		315
Pro Gln Arg His	Ser Leu Ser Glu Ile	Thr Tyr Leu Gly Gln Pro			
	320		325		330
Asp Ile Ser Ile	Leu Gln Pro Ser Asn	Val Pro Pro Pro Gln Ile			
	335		340		345
Leu Ser Pro Leu	Ser Tyr Ala Pro Asn	Ala Ala Pro Glu Val Gly			
	350		355		360
Pro Pro Ser Tyr	Ala Pro Gln Val Thr	Pro Glu Ala Gln Phe Pro			
	365		370		375
Phe Tyr Ala Pro	Gln Ala Ile Ser Lys	Val Gln Pro Ser Ser Tyr			
	380		385		390
Ala Pro Gln Ala	Thr Pro Asp Ser Trp	Pro Pro Ser Tyr Gly Val			
	395		400		405
Cys Met Glu Gly	Ser Gly Lys Asp Ser	Pro Thr Gly Thr Leu Ser			

410	415	420
Ser Pro Lys His Leu Arg Pro Lys Gly Gln Leu Gln Lys Glu Pro		
425	430	435
Pro Ala Gly Ser Cys Met Leu Gly Gly Leu Ser Leu Gln Glu Val		
440	445	450
Thr Ser Leu Ala Met Glu Glu Ser Gln Glu Ala Lys Ser Leu His		
455	460	465
Gln Pro Leu Gly Ile Cys Thr Asp Arg Thr Ser Asp Pro Asn Val		
470	475	480
Leu His Ser Gly Glu Glu Gly Thr Pro Gln Tyr Leu Lys Gly Gln		
485	490	495
Leu Pro Leu Leu Ser Ser Val Gln Ile Glu Gly His Pro Met Ser		
500	505	510
Leu Pro Leu Gln Pro Pro Ser Gly Pro Cys Ser Pro Ser Asp Gln		
515	520	525
Gly Pro Ser Pro Trp Gly Leu Leu Glu Ser Leu Val Cys Pro Lys		
530	535	540
Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser Asp Leu Glu Gln		
545	550	555
Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala Leu Thr Val		
560	565	570
Gln Trp Glu Ser		

<210> 165  
 <211> 1060  
 <212> DNA  
 <213> Homo Sapien

<400> 165  
 tggcctactg gaaaaaaaaa aaaaaaaaaa aaaagtcacc cgggcccgcg 50  
 gtggccacaa catggctgcg ggcgcggggc tgctcttctg gctgttcgtg 100  
 ctggggggcgc tctggtgggt cccggggccag tcggatctca gccacggacg 150  
 gcgtttctcg gacctcaaag tgtgcgggga cgaagagtgc agcatgttaa 200  
 tgtaccgtgg gaaagctctt gaagacttca cgggccctga ttgtcgtttt 250  
 gtgaatttta aaaaagggtga cgatgtatat gtctactaca aactggcagg 300  
 gggatccctt gaactttggg ctggaagtgt tgaacacagt tttggatatt 350  
 ttccaaaaga tttgatcaag gtacttcata aatacacgga agaagagcta 400

catattccag cagatgagac agactttgtc tgctttgaag gaggaagaga 450  
tgattttaat agttataatg tagaagagct tttaggatct ttggaactgg 500  
aggactctgt acctgaagag tcgaagaaag ctgaagaagt ttctcagcac 550  
agagagaaat ctctgagga gtctcggggg cgtgaacttg accctgtgcc 600  
tgagcccgag gcattcagag ctgattcaga ggatggagaa ggtgctttct 650  
cagagagcac cgaggggctg cagggacagc cctcagctca ggagagccac 700  
cctcacacca gcggctctgc ggctaacgct cagggagtgc agtcttcggt 750  
ggacactttt gaagaaattc tgcacgataa attgaaagtg ccgggaagcg 800  
aaagcagaac tggcaatagt tctcctgcct cggtggagcg ggagaagaca 850  
gatgcttaca aagtctgaa aacagaaatg agtcagagag gaagtggaca 900  
gtgcgttatt cattacagca aaggatttcg ttggcatcaa aatctaagtt 950  
tgttttacaa agattgtttt tagtactaag ctgccttggc agtttgcatt 1000  
tttgagccaa acaaaaatat attattttcc cttctaagta aaaaaaaaaa 1050  
aaaaaaaaaa 1060

<210> 166  
<211> 303  
<212> PRT  
<213> Homo Sapien

<400> 166  
Met Ala Ala Ala Pro Gly Leu Leu Phe Trp Leu Phe Val Leu Gly  
1 5 10 15  
Ala Leu Trp Trp Val Pro Gly Gln Ser Asp Leu Ser His Gly Arg  
20 25 30  
Arg Phe Ser Asp Leu Lys Val Cys Gly Asp Glu Glu Cys Ser Met  
35 40 45  
Leu Met Tyr Arg Gly Lys Ala Leu Glu Asp Phe Thr Gly Pro Asp  
50 55 60  
Cys Arg Phe Val Asn Phe Lys Lys Gly Asp Asp Val Tyr Val Tyr  
65 70 75  
Tyr Lys Leu Ala Gly Gly Ser Leu Glu Leu Trp Ala Gly Ser Val  
80 85 90  
Glu His Ser Phe Gly Tyr Phe Pro Lys Asp Leu Ile Lys Val Leu  
95 100 105  
His Lys Tyr Thr Glu Glu Glu Leu His Ile Pro Ala Asp Glu Thr  
110 115 120

Asp	Phe	Val	Cys	Phe	Glu	Gly	Gly	Arg	Asp	Asp	Phe	Asn	Ser	Tyr
				125					130					135
Asn	Val	Glu	Glu	Leu	Leu	Gly	Ser	Leu	Glu	Leu	Glu	Asp	Ser	Val
				140					145					150
Pro	Glu	Glu	Ser	Lys	Lys	Ala	Glu	Glu	Val	Ser	Gln	His	Arg	Glu
				155					160					165
Lys	Ser	Pro	Glu	Glu	Ser	Arg	Gly	Arg	Glu	Leu	Asp	Pro	Val	Pro
				170					175					180
Glu	Pro	Glu	Ala	Phe	Arg	Ala	Asp	Ser	Glu	Asp	Gly	Glu	Gly	Ala
				185					190					195
Phe	Ser	Glu	Ser	Thr	Glu	Gly	Leu	Gln	Gly	Gln	Pro	Ser	Ala	Gln
				200					205					210
Glu	Ser	His	Pro	His	Thr	Ser	Gly	Pro	Ala	Ala	Asn	Ala	Gln	Gly
				215					220					225
Val	Gln	Ser	Ser	Leu	Asp	Thr	Phe	Glu	Glu	Ile	Leu	His	Asp	Lys
				230					235					240
Leu	Lys	Val	Pro	Gly	Ser	Glu	Ser	Arg	Thr	Gly	Asn	Ser	Ser	Pro
				245					250					255
Ala	Ser	Val	Glu	Arg	Glu	Lys	Thr	Asp	Ala	Tyr	Lys	Val	Leu	Lys
				260					265					270
Thr	Glu	Met	Ser	Gln	Arg	Gly	Ser	Gly	Gln	Cys	Val	Ile	His	Tyr
				275					280					285
Ser	Lys	Gly	Phe	Arg	Trp	His	Gln	Asn	Leu	Ser	Leu	Phe	Tyr	Lys
				290					295					300

Asp Cys Phe

<210> 167

<211> 2570

<212> DNA

<213> Homo Sapien

<400> 167

ccaggaccag ggcgaccgg ctcagcctct cacttgtcag aggcgggga 50

agagaagcaa agcgcaacgg tgtggtccaa gccggggctt ctgcttcgcc 100

tctaggacat acacgggacc ccctaacttc agtcccccaa acgcgcaccc 150

tcgaagtctt gaactccagc cccgcacatc cagcgcgggc acaggcgcg 200

caggcggcag gtcccgggcg aaggcgatgc gcgcaggggg tcgggcagct 250

gggctcgggc ggcgggagta gggcccgga gggaggcagg gaggctgcat 300

attcagagtc gcgggctgcg ccctgggcag aggccgcctt cgctccacgc 350  
 aacacctgct gctgccaccg cgccgcgatg agccgcgtgg tctcgctgct 400  
 gctgggcgcc gcgctgctct gcggccacgg agccttctgc cgccgcgtgg 450  
 tcagcggcca aaaggtgtgt tttgctgact tcaagcatcc ctgctacaaa 500  
 atggcctact tccatgaact gtccagccga gtgagcttcc aggaggcacg 550  
 cctggcttgt gagagtgagg gaggagtcct cctcagcctt gagaatgaag 600  
 cagaacagaa gttaatagag agcatgttgc aaaacctgac aaaacccggg 650  
 acagggattt ctgatggtga tttctggata gggctttgga ggaatggaga 700  
 tgggcaaaca tctggtgcct gccagatct ctaccagtgg tctgatggaa 750  
 gcaattccca gtaccgaaac tggtaacacag atgaaccttc ctgcggaagt 800  
 gaaaagtgtg ttgtgatgta tcaccaacca actgccaatc ctggccttgg 850  
 gggtccctac ctttaccagt ggaatgatga caggtgtaac atgaagcaca 900  
 attatatttg caagtatgaa ccagagatta atccaacagc ccctgtagaa 950  
 aagccttata ttacaaatca accaggagac acccatcaga atgtggttgt 1000  
 tactgaagca ggtataattc ccaatctaatt ttatgttgtt ataccaacaa 1050  
 tacccttgct cttactgata ctggttgctt ttggaacctg ttgtttccag 1100  
 atgctgcata aaagtaaagg aagaacaaaa actagtccaa accagtctac 1150  
 actgtggatt tcaaagagta ccagaaaaga aagtggcatg gaagtataat 1200  
 aactcattga cttggttcca gaattttgta attctggatc tgtataagga 1250  
 atggcatcag aacaatagct tggaatggct tgaaatcaca aaggatctgc 1300  
 aagatgaact gtaagctccc ccttgaggca aatattaaag taatttttat 1350  
 atgtctatta tttcatttaa agaatatgct gtgctaataa tggagtgaga 1400  
 catgcttatt ttgctaaagg atgcacccaa acttcaaact tcaagcaaat 1450  
 gaaatggaca atgcagataa agttgttatc aacacgtcgg gagtatgtgt 1500  
 gttagaagca attcctttta tttctttcac ctttcataag ttgttatcta 1550  
 gtcaatgtaa tgtatatgtt attgaaattt acagtgtgca aaagtatttt 1600  
 acctttgcat aagtgtttga taaaaatgaa ctgttctaatt atttattttt 1650  
 atggcatctc atttttcaat acatgctctt ttgattaaag aaacttatta 1700  
 ctgttgtaaa ctgaattcac acacacacaa atatagtacc atagaaaaag 1750

tttgttttct cgaaataatt catctttcag cttctctgct tttggtcaat 1800  
 gtctaggaaa tctcttcaga aataagaagc tatttcatta agtgtgatat 1850  
 aaacctcttc aaacatttta cttagaggca aggattgtct aatttcaatt 1900  
 gtgcaagaca tgtgccttat aattattttt agcttaaaat taaacagatt 1950  
 ttgtaataat gtaactttgt taataggtgc ataaacacta atgcagtcaa 2000  
 tttgaacaaa agaagtgaca tacacaatat aaatcatatg tcttcacacg 2050  
 ttgcctatat aatgagaagc agctctctga gggttctgaa atcaatgtgg 2100  
 tccctctctt gccactaaa caaagatggg tgttcggggg ttgggattga 2150  
 cactggaggc agatagttgc aaagttagtc taaggtttcc ctagctgtat 2200  
 ttagcctctg actatattag tatacaaaga ggtcatgtgg ttgagaccag 2250  
 gtgaatagtc actatcagtg tggagacaag cacagcacac agacatttta 2300  
 ggaaggaaaag gaactacgaa atcgtgtgaa aatggggttg aacccatcag 2350  
 tgatcgcata ttcattgatg agggtttgct tgagatagaa aatgggtggc 2400  
 cctttctgtc ttatctccta gtttcttcaa tgcttacgcc ttgttcttct 2450  
 caagagaaaag ttgtaactct ctggtcttca tatgtccctg tgctcctttt 2500  
 aaccaaataa agagttcttg tttctggggg aaaaaaaaaa aaaaaaaaaa 2550  
 aaaaaaaaaa aaaaaaaaaa 2570

<210> 168  
 <211> 273  
 <212> PRT  
 <213> Homo Sapien

<400> 168  
 Met Ser Arg Val Val Ser Leu Leu Leu Gly Ala Ala Leu Leu Cys  
 1 5 10 15  
 Gly His Gly Ala Phe Cys Arg Arg Val Val Ser Gly Gln Lys Val  
 20 25 30  
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe  
 35 40 45  
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala  
 50 55 60  
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala  
 65 70 75  
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro  
 80 85 90

Gly	Thr	Gly	Ile	Ser	Asp	Gly	Asp	Phe	Trp	Ile	Gly	Leu	Trp	Arg	95	100	105
Asn	Gly	Asp	Gly	Gln	Thr	Ser	Gly	Ala	Cys	Pro	Asp	Leu	Tyr	Gln	110	115	120
Trp	Ser	Asp	Gly	Ser	Asn	Ser	Gln	Tyr	Arg	Asn	Trp	Tyr	Thr	Asp	125	130	135
Glu	Pro	Ser	Cys	Gly	Ser	Glu	Lys	Cys	Val	Val	Met	Tyr	His	Gln	140	145	150
Pro	Thr	Ala	Asn	Pro	Gly	Leu	Gly	Gly	Pro	Tyr	Leu	Tyr	Gln	Trp	155	160	165
Asn	Asp	Asp	Arg	Cys	Asn	Met	Lys	His	Asn	Tyr	Ile	Cys	Lys	Tyr	170	175	180
Glu	Pro	Glu	Ile	Asn	Pro	Thr	Ala	Pro	Val	Glu	Lys	Pro	Tyr	Leu	185	190	195
Thr	Asn	Gln	Pro	Gly	Asp	Thr	His	Gln	Asn	Val	Val	Val	Thr	Glu	200	205	210
Ala	Gly	Ile	Ile	Pro	Asn	Leu	Ile	Tyr	Val	Val	Ile	Pro	Thr	Ile	215	220	225
Pro	Leu	Leu	Leu	Leu	Ile	Leu	Val	Ala	Phe	Gly	Thr	Cys	Cys	Phe	230	235	240
Gln	Met	Leu	His	Lys	Ser	Lys	Gly	Arg	Thr	Lys	Thr	Ser	Pro	Asn	245	250	255
Gln	Ser	Thr	Leu	Trp	Ile	Ser	Lys	Ser	Thr	Arg	Lys	Glu	Ser	Gly	260	265	270

Met Glu Val

<210> 169  
 <211> 43  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 169  
 tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 170  
 <211> 41  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe



<400> 170

caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41